



DEPARTMENT OF VETERANS AFFAIRS

WILLIAM S. MIDDLETON MEMORIAL VETERANS HOSPITAL 2500 OVERLOOK TERRACE MADISON, WISCONSIN 53705
RENOVATE BUILDING 2 ADMINISTRATIVE SUPPORT.

VA PROJECT NUMBER 607-12-115
IDG PROJECT NUMBER 120901

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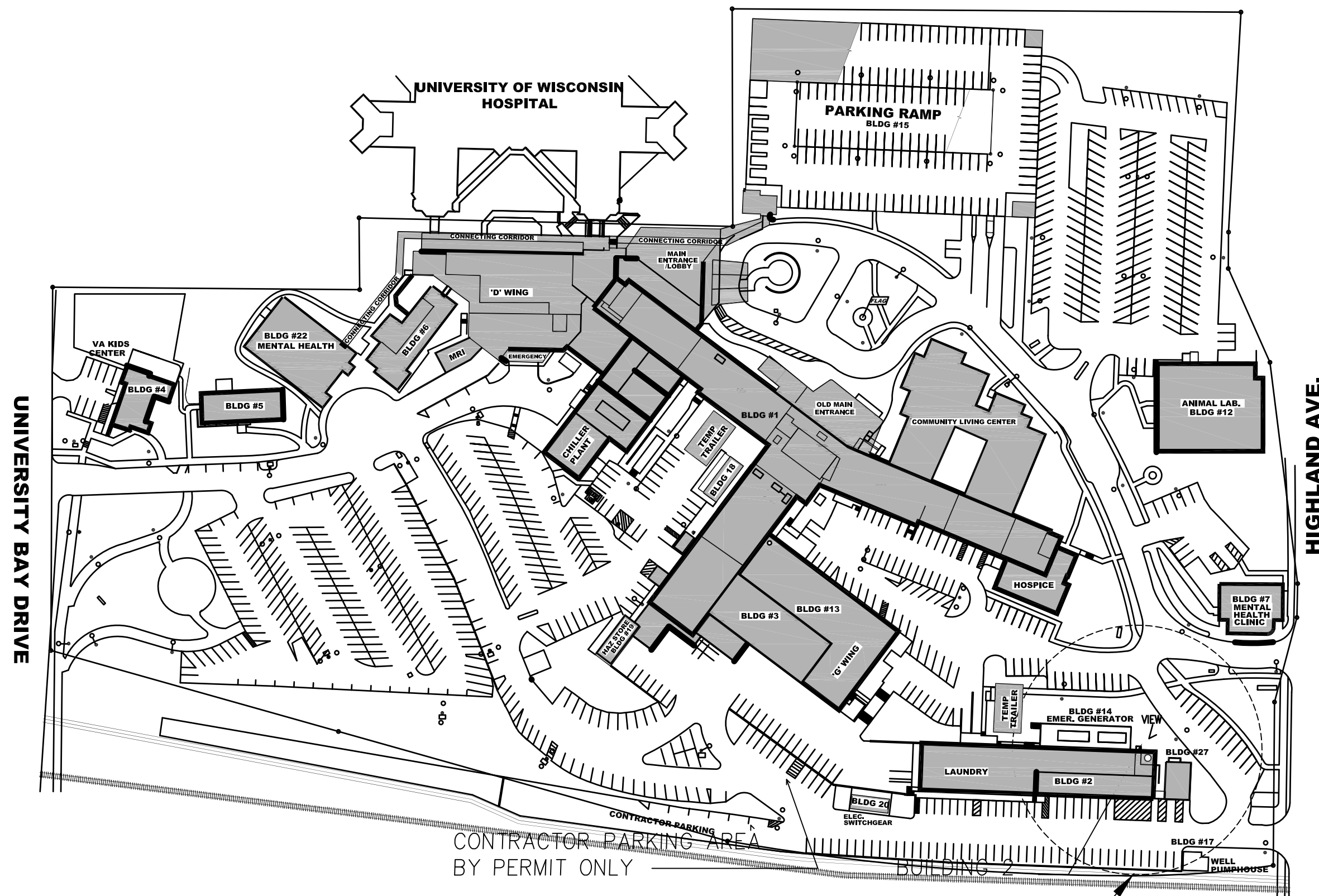
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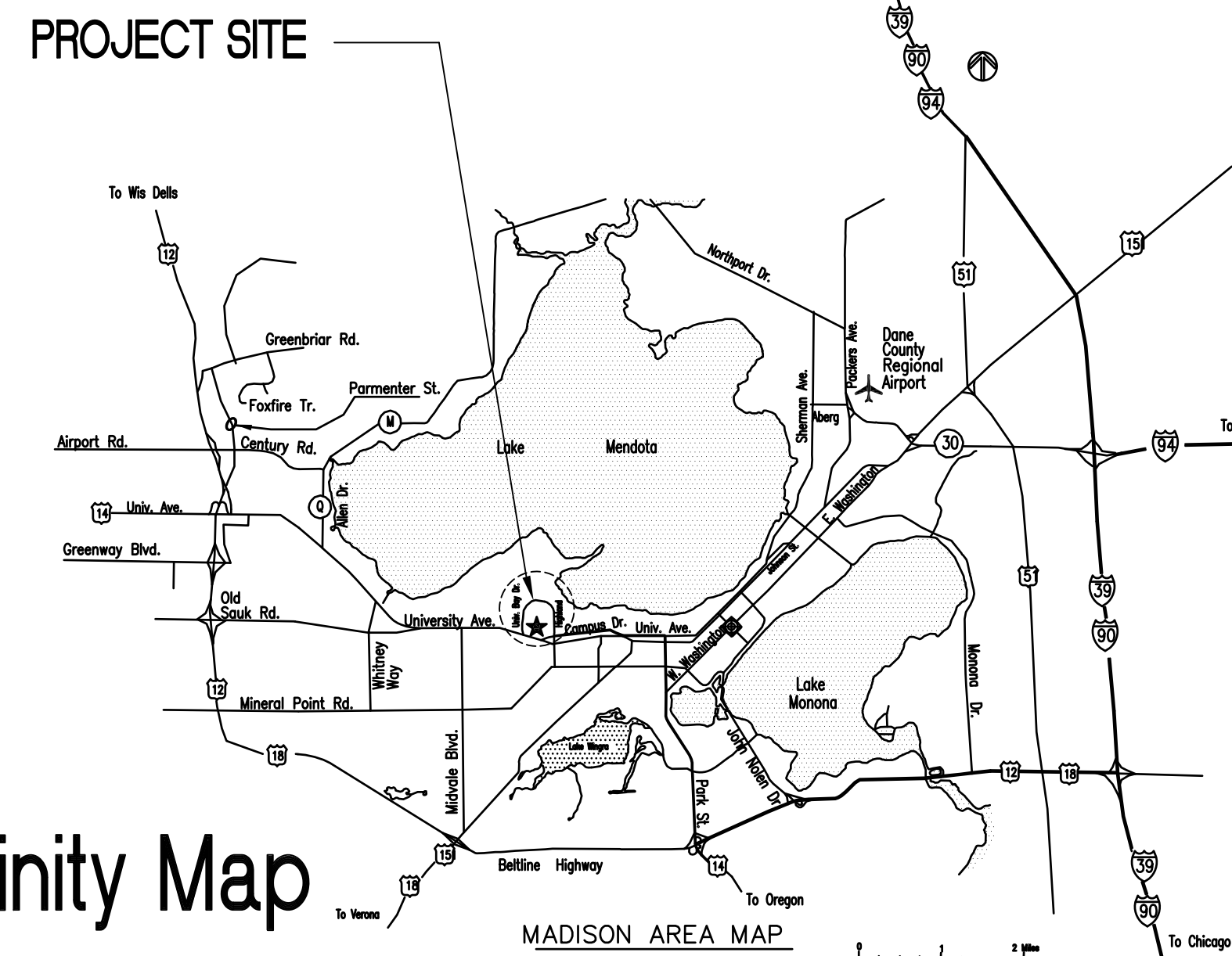
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100% CONSTRUCTION DOCUMENTS



VA Site Map



Vicinity Map

VOL 3

BUILDING INFORMATION

1BC, NFPA 101: LATEST ADDITION
OCCUPANCY: IBC B BUSINESS
CLASS OF CONSTRUCTION: IBC IIA NON-COMBUSTIBLE
BUILDING FULLY SPRINKLERED: UNLIMITED AREA

FIRE RATINGS	IN HOURS
BEARING WALLS & COLUMNS	1
TRUSSES, GIRDERS, BEAMS	1
FLOOR CONSTRUCTION	1 or 2
ROOF CONSTRUCTION	1
SHAFTS	2

AREA SQUARE FOOTAGE	RENOVATION AREA
BASEMENT FLOOR	1,570 SF
GROUND FLOOR	4,845 SF
FIRST FLOOR	4,224 SF
SECOND FLOOR	4,845 SF
THIRD FLOOR	2,383 SF
TOTAL	17,867 SF

VIEW

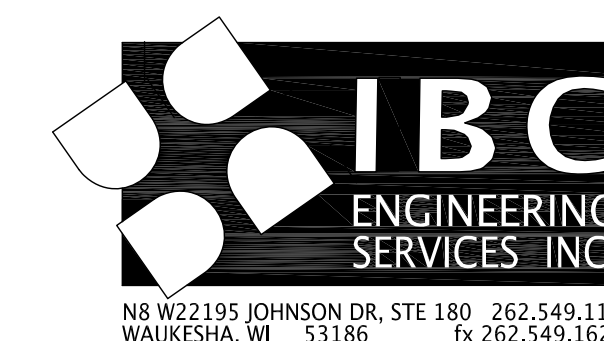


VOL 4

ARCHITECT/ENGINEERS:

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suite 200
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magel
architects



Drawing Title

Cover Sheet

Approved: Project Director

Project Title

William S. Middleton VA Hospital

Renovate Building 2

Location
Madison, WI

Date
MARCH 29, 2013

Checked
SAM

Drawn
REG

Project Number

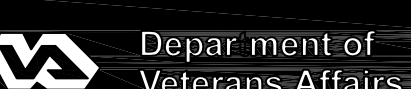
607-12-115

Building Number
2

Drawing Number
G100

Dwg. of

Office of
Construction
and Facilities
Management



three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one eighth inch = one foot
one quarter inch = one foot

ELECTRICAL LEGEND

	SWITCH		SINGLE RECEPTACLE
	THREE WAY WALL SWITCH		DUPLEX RECEPTACLE
	FOUR WAY WALL SWITCH		DUPLEX RECEPTACLE 6" ABOVE COUNTER OR BACKPLASH OR AT HEIGHT INDICATED
	DIMMING SWITCH		DOUBLE DUPLEX RECEPTACLE
	SWITCH-BOX STYLE DUAL TECHNOLOGY OCCUPANCY SENSOR		TOP SWITCHED DUPLEX RECEPTACLE
	WALL /CEILING MOUNT DUAL TECHNOLOGY OCCUPANCY SENSOR		SPECIAL PURPOSE OUTLET
	CEILING MOUNT DUAL TECHNOLOGY OCCUPANCY SENSOR		DUPLEX FLOOR OUTLET
	DAYLIGHT SENSOR		DOUBLE DUPLEX FLOOR OUTLET
	EXTERIOR PHOTOELECTRIC SWITCH		TOP SWITCHED DUPLEX FLOOR OUTLET
	SURFACE MOUNT LIGHT FIXTURE		CEILING MOUNTED DUPLEX RECEPTACLE
	SURFACE MOUNT LIGHT FIXTURE - EMERGENCY		CEILING MOUNTED DOUBLE DUPLEX RECEPTACLE
	PENDENT DIRECT/INDIRECT (LENGTH AS INDICATED)		POKE THRU
	STRIP/INDUSTRIAL FIXTURE		PUSH BUTTON
	2X4 SURFACE MOUNT FIXTURE		POWER POLE
	2X4 RECESSED FIXTURE		JUNCTION BOX
	2X4 RECESSED FIXTURE - EMERGENCY		CIRCUIT BREAKER
	LINEAR WALL BRACKET		FUSE
	WALL MOUNTED FIXTURE		GROUND
	RECESSED FIXTURE		TRANSOCKET
	RECESSED FIXTURE - EMERGENCY		SURFACE MOUNT PANEL
	BOLLARD		RECESSED PANEL
	CEILING OR WALL MOUNTED EXIT, SINGLE FACE		TRANSFORMER
	CEILING OR WALL MOUNTED EXIT, DOUBLE FACE		METER
	CEILING OR WALL MOUNTED EXIT, SINGLE FACE, SINGLE ARROW LEFT		CURRENT TRANSFORMER
	CEILING OR WALL MOUNTED EXIT, SINGLE FACE, ARROW RIGHT		MANUAL DISCONNECT
	CEILING OR WALL MOUNTED EXIT, SINGLE FACE, DOUBLE ARROW		NON-FUSED DISCONNECT
	CEILING OR WALL MOUNTED EXIT, DOUBLE FACE, DOUBLE ARROW		FUSED DISCONNECT
	EMERGENCY WALL PACK (EBU)		MAGNETIC STARTER
	EMERGENCY TRANSFER BYPASS RELAY		COMBINATION STARTER
			MOTOR
			TELEPHONE OUTLET
			3 PORT DATA OUTLET
			2 PORT TELEPHONE/ 2 PORT DATA OUTLET
			DATA FLOOR OUTLET
			TELEPHONE FLOOR OUTLET
			DATA FLOOR OUTLET
			TELEPHONE/DATA FLOOR OUTLET
			TELEVISION OUTLET
			HANDICAP DOOR OPERATOR PUSH PLATE

	FIRE ALARM PULL STATION		FIRE ALARM HORN
	FIRE ALARM HORN		FIRE ALARM HORN - CEILING
	FIRE ALARM HORN STROBE		FIRE ALARM HORN STROBE - CEILING
	FIRE ALARM HORN STROBE - CEILING		FIRE ALARM STROBE
	FIRE ALARM STROBE - CEILING		FIRE ALARM SPEAKER
	FIRE ALARM SPEAKER		FIRE ALARM SPEAKER - CEILING
	FIRE ALARM SPEAKER STROBE		FIRE ALARM SPEAKER STROBE - CEILING
	FIRE ALARM BELL		FIRE ALARM HEAT DETECTOR
	FIRE ALARM HEAT DETECTOR		FIRE ALARM SMOKE DETECTOR
	FIRE ALARM DUCT DETECTOR		FIRE ALARM TAMPER SWITCH
	FIRE ALARM FLOW SWITCH		FIRE ALARM CONTROL MODULE
	FIRE ALARM CONTROL MODULE		FIRE ALARM MONITOR MODULE
	CEILING MOUNTED SPEAKER		CLOCK
	WALL MOUNTED CLOCK		SECURITY CARD READER
	SECURITY ELECTRIC STRIKE		SECURITY POWER XFMR. FOR ELECTRIC STRIKE
	SECURITY STRIKE REQUEST TO EXIT PUSHBUTTON		SECURITY DOOR CONTACTOR
	SECURITY DOOR POSITION SWITCH		SECURITY CAMERA
	SECURITY PAN, TILT, ZOOM CAMERA		SECURITY MONITOR
	SECURITY ACCESS CONTROL PANEL		SECURITY CONTROL PANEL
	SECURITY MULTIPLEXER		HAND HOLE
	HAND-OFF-AUTO HORSE POWER		ISOLATED GROUND
	INTERMEDIATE METALLIC CONDUIT IN UNIT		KILOVOLT AMPERE
	LIGHT EMITTING DIODE		LINEAR FOOT (FEET)
	LOOKED ROTOR AMPERAGE		LEGALLY REQUIRED STANDBY SYSTEM
	LIFE SAFETY		LIGHTING
	LOW VOLTAGE		

ELECTRICAL ABBREVIATIONS

1P 2P 2W 3P 3W 4W	SINGLE POLE SINGLE PHASE TWO POLE TWO WIRE THREE POLE THREE PHASE THREE WIRE FOUR WIRE	MAG MAN MATV MAX MC MCA MCB MCC MOP MH MIN MOC MLO MTD MTG MTS MV	MAGNETIC STARTER MANUAL STARTER MASTER ANTENNA TELEVISION SYSTEM MAXIMUM MECHANICAL CONTRACTOR MINIMUM CIRCUIT AMPACITY MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER MAIN DISTRIBUTION PANEL MANHOLE MINIMUM MAXIMUM OVERCURRENT PROTECTION MAIN LUG ONLY MOUNTED MOUNTING MANUAL TRANSFER SWITCH MEDIUM VOLTAGE
A AC AFF AHJ AIC ALT AMP ARCH ATS AUTO AV	AMPERE ALTERNATING CURRENT ABOVE FINISHED FLOOR AUTHORITY HAVING JURISDICTION AMPERE INTERRUPTING CAPACITY ALTERNATE AMPERE ARCHITECT AUTOMATIC TRANSFER SWITCH AUTOMATIC AUDIO VISUAL	NOT APPLICABLE NAC NC NEC NF NFA NFSS NIC NL NO NTS NU	NOT APPLICABLE NOTIFICATION APPLIANCE CIRCUIT NORMALLY CLOSED NATIONAL ELECTRICAL CODE NON-FUSIBLE NATIONAL FIRE PROTECTION AGENCY NON-FUSED SAFETY SWITCH NOT INCLUDED IN CONTRACT NIGHT LIGHT NORMALLY OPEN NOT TO SCALE NEAR UNIT
BLDG BKR C CAB CAP CAT CB CCTV CD CFL CKT CLG COAX CONT CP CS CABINET CU	BUILDING BREAKER CONDUIT OR CONTACTOR CABINET CAPACITY CATALOG CIRCUIT BREAKER CLOSED CIRCUIT TELEVISION CANDELA COMPACT FLUORESCENT LAMP CIRCUIT CEILING COAXIAL CABLE CONTINUE CONTROL PANEL COMBINATION STARTER CABLE TELEVISION COPPER	OC OD OS OU P PA PB PC PED PEND PF PH PL PNL PP PVC PW PWR	ON CENTER OUTSIDE DIAMETER OVERLOAD OPTIONAL STANDBY OR OCCUPANCY SENSOR ON UNIT POLE PUBLIC ADDRESS PANELBOARD, PULL BOX, OR PUSHBUTTON PLUMBING CONTRACTOR, OR PHOTO ELECTRIC SWITCH PEDESTAL PENDANT POWER FACTOR PHASE PILOT LIGHT PANEL POWER PANEL POLYVINYL CHLORIDE (PLASTIC) PRE-WIRED POWER
DEMO DISC DIST DN DPDT DPST DS DWG	DEMOLITION DISCONNECT DISTRIBUTION DOWN DOUBLE POLE, DOUBLE THROW DOUBLE POLE, SINGLE THROW DAYLIGHT SENSOR DRAWING	R RCP REC RECP RM REDD	RELAY, OR DEVICE CONNECTED TO SUITABLE HANGERS FROM THE STRUCTURAL SLAB DECK OR FRAMING ABOVE, INDEPENDENT OF THE CEILING, CEILING SUPPORT SYSTEM AND OTHER TRADE COMPONENTS ALL CONDUITS SHALL BE CONCEALED UNLESS OTHERWISE NOTED ON DRAWINGS.
EBU EC ELEV EMER EMT ENCL ER ERL ES ETR EWC EWH	EMERGENCY BATTERY UNIT ELECTRICAL CONTRACTOR ELEVATOR EMERGENCY ELECTRICAL METALLIC TUBING ENCLOSURE ELEVATOR RECALL EXISTING TO BE RELOCATED ELECTRIC STRIKE EXISTING TO REMAIN ELECTRIC WATER COOLER ELECTRIC WATER HEATER	SCC SD SF SPD SPEC SPST SS ST SW SWBD	SHORT CIRCUIT CAPACITY SMOKE DETECTOR OR SMOKE DAMPER SQUARE FOOT (FEET) SURGE PROTECTION DEVICE SPECIFICATION SINGLE POLE, SINGLE THROW SWITCH STATION/SOLID STATE SHUNT TRIP SWITCH SWITCHBOARD
FA FAAP FACP FBO FLA FP FSS FU FVNR FVR	FIRE ALARM FIRE ALARM ANNUNCIATOR PANEL FIRE ALARM CONTROL PANEL FURNISHED BY OTHERS FULL LOAD AMPERE FIRE PROTECTION FUSED SAFETY SWITCH FUSE FULL VOLTAGE NON-REVERSING FULL VOLTAGE REVERSING	T TC TCG TV TVSS TYP	THERMOSTAT TIMECLOCK TEMPERATURE CONTROL CONTRACTOR TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESSION TYPICAL
GC GEN GFI/GFCI GND GRS	GENERAL CONTRACTOR GENERATOR GROUND FAULT CIRCUIT INTERRUPTER GROUND GALVANIZED RIGID CONDUIT	UH UG UL UPS V VA VFD	UNIT HEATER UNDERGROUND UNDERWRITERS LABORATORY UNINTERRUPTIBLE POWER SUPPLY VOLT VOLT AMPERE VARIABLE FREQUENCY DRIVE
HH HOA HP	HAND HOLE HAND-OFF-AUTO HORSE POWER	W WAP WH WP	WATT OR WIRE WIRELESS ACCESS POINT WATER HEATER WEATHERPROOF
IG IMC IU	ISOLATED GROUND INTERMEDIATE METALLIC CONDUIT IN UNIT	X- XFR XFMR	EXISTING TRANSFER TRANSFORMER
KVA KW	KILOVOLT AMPERE KILOWATT	Z	ZONE

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E-603: ELECTRICAL SCHEDULES
E-604: ELECTRICAL SCHEDULES

ELECTRICAL NOTES

- ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE, LOCAL CODES, FEDERAL AND STATE REGULATIONS, AND ALL REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE FULL EXTENT OF WORK, AND PROJECT CONDITIONS, AND SHALL BE FAMILIAR WITH THE LOCAL CONDITIONS AND CODES RELATING TO THE WORK. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATIONS OF THE CONTRACT.
- THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IN WRITING OF ANY EQUIPMENT, MATERIALS, INSTALLATIONS, ETC., THAT ARE DEFICIENT OR IN VIOLATION OF LOCAL CODES AND REGULATIONS.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIAL, LABOR, EQUIPMENT, DEVICES, FIXTURES, SERVICE REQUIREMENTS, ETC., NECESSARY FOR A COMPLETE AND FULLY OPERATIONAL ELECTRICAL SYSTEM/INSTALLATION.
- THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH THESE DRAWINGS. WHERE MORE STRINGENT REQUIREMENTS ARE SET FORTH BY THE ARCHITECTURAL DRAWINGS OR LOCAL CODES AND REGULATIONS, THE GREATER REQUIREMENTS SHALL GOVERN. ANY DEVIATIONS FROM THESE DRAWINGS SHALL BE RECORDED AND PROVIDED IN WRITING TO THE ARCHITECT AND ENGINEER.
- THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND THE CONTRACTOR SHALL INSTALL EQUIPMENT TO MEET THE FIELD CONDITIONS WITH COORDINATION FROM APPROVED SHOP DRAWINGS.
- THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE RESPECTIVE TRADES AND VERIFY LOCATIONS AND REQUIREMENTS FROM THE ARCHITECTURAL DRAWINGS, FIELD MEASUREMENTS AND SUPPLIER SHOP DRAWINGS.
- THE CONTRACTOR SHALL CHECK ALL DRAWINGS AND SPECIFICATIONS OF OTHER TRADES AND INCLUDE IN THEIR BID ANY ADDITIONAL WORK REQUIRED BY THIS TRADE.
- REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL LIGHT SWITCHES, POWER, AND COMMUNICATIONS OUTLETS. ALL OUTLETS SHALL BE MOUNTED VERTICALLY UNLESS OTHERWISE NOTED. COORDINATE ALL FINAL DEVICE REQUIREMENTS WITH ARCHITECT PRIOR TO INSTALLATION.
- ALL CONDUITS SHOULD BE SUPPORTED IN COMPLIANCE WITH CODE REQUIREMENTS AND INSTALLED IN A MANNER AS TO AFFORD MINIMUM INTERFERENCE WITH OTHER TRADES. ALL CONDUITS ABOVE CEILING SHALL BE REGULARLY SUPPORTED TO SUITABLE HANGERS FROM THE STRUCTURAL SLAB DECK OR FRAMING ABOVE, INDEPENDENT OF THE CEILING, CEILING SUPPORT SYSTEM AND OTHER TRADE COMPONENTS. ALL CONDUITS SHALL BE CONCEALED UNLESS OTHERWISE NOTED ON DRAWINGS.
- FIRE RATED SEALS SHALL BE PROVIDED FOR ALL CONDUIT PENETRATIONS THROUGH FIRE RATED FLOORS, WALLS, AND CEILINGS.
- CONTRACTOR SHALL VERIFY ALL EQUIPMENT CONNECTION CONFIGURATIONS BEFORE PURCHASE. ALL DEVICES SHOWN ARE FOR REFERENCE ONLY, TO COMMUNICATE DESIGN INTENT, FINAL LOCATIONS SHALL BE VERIFIED PRIOR TO INSTALLATION. THIS NOTE SHALL APPLY TO, BUT NOT BE LIMITED TO, RECEPTACLES, SWITCHES, DATA PORTS, AUDIO/VIDEO DEVICES, AND TELEPHONE JACKS.
- THE CONTRACTOR SHALL COORDINATE AND VERIFY ALL ABOVE CEILING REQUIREMENTS (PLENUM, NON-PLENUM, AIR HANDLING, ETC.) AS REQUIRED BY LOCAL AUTHORITY BEFORE THE INSTALLATION AND PURCHASE OF ELECTRICAL EQUIPMENT, MATERIALS AND DEVICES, WIRING, CABLING, AND THE ORDERING OF LIGHTING FIXTURES.
- CONDUCTOR SIZES INDICATED ARE MINIMUM SIZES BASED ON 75°C COPPER CONDUCTOR. AMPACITIES OF CONDUCTORS DO NOT TAKE VOLTAGE DROP INTO CONSIDERATION. CONTRACTOR SHALL SIZE CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS TO PREVENT A VOLTAGE DROP EXCEEDING 3 PERCENT AT THE FARTHEST OUTLET OF POWER, HEATING, AND LIGHTING LOADS, OR COMBINATION OF SUCH LOADS, AND WHERE THE MAXIMUM TOTAL VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST OUTLET DOES NOT EXCEED 5 PERCENT, TO PROVIDE REASONABLE EFFICIENCY OF OPERATION.
- ALL FINAL LOCATION AND ARRANGEMENTS OF LIGHTING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL REFLECTED CEILING PLAN.
- LIGHTING FIXTURES WITH MORE THAN TWO LAMPS SHALL HAVE TWO OUTER LAMPS CONTROLLED WITH ONE SWITCH AND INNER LAMP (S) CONTROLLED BY A SECOND SWITCH.
- (1) EACH BRANCH CIRCUIT HOMERUN SHALL HAVE NO MORE THAN THREE CIRCUITS. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE A SEPARATE GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR.
- MULTI-GANG BACKBOXES FOR DIFFERENT VOLTAGE AND TYPES OF EMERGENCY AND NORMAL BRANCH WIRING DEVICES SHALL HAVE DEVICES SHALL HAVE DIVIDERS BETWEEN DEVICES.
- PROVIDE ALL NECESSARY CUTTING AND PATCHING TO PERMIT THE INSTALLATION OF CONDUIT OR ANY PART OF THE ELECTRICAL WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST CAUSED BY DEFECTIVE OR ILL-TIMED WORK.
- ALL WORK REQUIRED IN THE EXISTING BUILDING SHALL BE DONE IN A MANNER AND TIME ACCEPTABLE TO THE OWNER. OUTLAGES AND OTHER WORK RENDERING EXISTING EQUIPMENT INOPERATIVE SHALL BE HELD TO A MINIMUM - PRIOR ARRANGEMENTS FOR EACH SHALL BE MADE WITH THE OWNER.
- ELECTRICAL EQUIPMENT IN CONFLICT WITH CONSTRUCTION SHALL BE REMOVED AND/OR RELOCATED AS INDICATED ON THE DRAWINGS, AS DIRECTED OR REQUIRED. THIS CONTRACTOR SHALL REMOVE ALL ELECTRICAL EQUIPMENT RELEASED FROM SERVICE AS A RESULT OF CONSTRUCTION. NO EQUIPMENT REMOVED SHALL BE REUSED, EXCEPT AS SPECIFICALLY DIRECTED ON THE DRAWINGS.
- ANY EXISTING CIRCUITS OR EQUIPMENT NOT SHOWN ON THE DRAWINGS AND WHICH ARE LOGICALLY EXPECTED TO BE CONTINUED IN SERVICE AND WHICH MAY BE INTERRUPTED OR DISTURBED DURING CONSTRUCTION SHALL BE RECONNECTED IN AN APPROVED MANNER. ANY EXISTING CIRCUIT OR EQUIPMENT WHICH MAY REQUIRE RELOCATION OR REROUTING, AS A RESULT OF CONSTRUCTION, SHALL BE CONSIDERED A PART OF THE WORK OF THIS BRANCH AND SHALL BE DONE BY THIS CONTRACTOR WITH NO ADDITIONAL COMPENSATION.
- PROVIDE PATCHING OF ALL HOLES AND OPENINGS RESULTING FROM THE REMOVAL OF EXISTING ELECTRICAL EQUIPMENT, RACEWAYS AND BOXES. REFINISH SURFACES TO MATCH EXISTING SURROUNDING AREA IN A MANNER ACCEPTABLE TO THE ARCHITECT.

100% CONSTRUCTION DOCUMENTS

		CONSULTANTS:				ARCHITECT/ENGINEERS:		Drawing Title		Project Title		Project Number		Office of	
						13100 watertown plank road suite 200 elm grove, wi 53122		Electrical Symbols and Abbreviations		Renovate Building 2		607-12-115		Construction	
						p 262.641.0746 f 262.641.0584		Approved: Project Director		Location		Building Number		and Facilities	
						magel architects				Madison, WI		2		Management	
						IBC ENGINEERING SERVICES INC.				Date		Drawing Number			
						N8 W22195 JOHNSON DR. STE 180 262.549.1190 WAUKESHA, WI 53186 1x 262.549.1620				MARCH 29, 2013		E-000			
										Checked		Dwg. * of		Department of Veterans Affairs	
										DS					
										Drawn					
										KEB					
Revisions:															
Date															

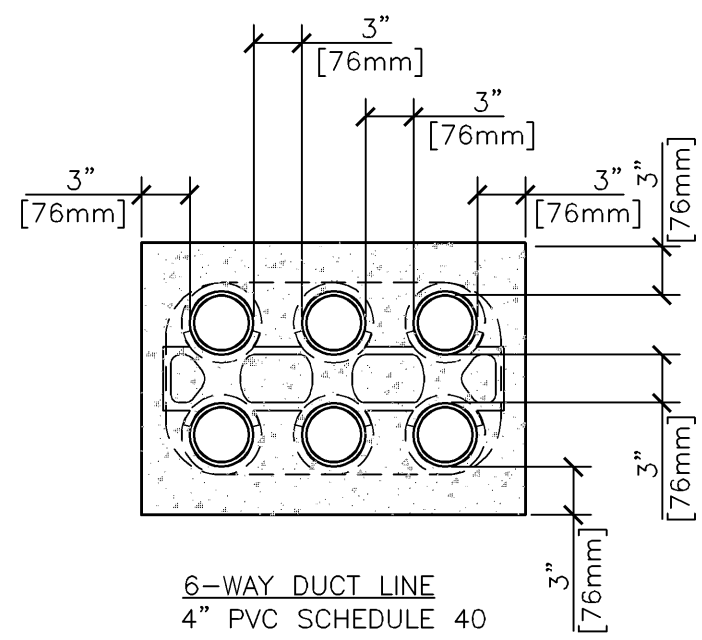
three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

SHEET NOTES

- COORDINATE TRENCHING AND DUCT BANK INSTALLATION WITH TRENCH WORK REQUIRED FOR REMOVAL AND REPLACEMENT OF CURBING.
- EXISTING FIBER OPTIC CABLE TO BUILDING #2 TO BE REMOVED AFTER NEW FIBER OPTIC CABLES ARE INSTALLED AND OPERATIONAL.
- ALL MECHANICAL, PLUMBING, OR ELECTRICAL WORK THAT REQUIRES SERVICE DISRUPTIONS IN BUILDING 2 THAT WILL IMPACT THE LAUNDRY OPERATIONS SHALL BE SCHEDULED BETWEEN NOON ON FRIDAYS TO 7:00 AM ON MONDAY (WEEKEND WORK ONLY). COORDINATE WORK BETWEEN TRADES SO THAT WORK OF MULTIPLE TRADES CAN BE PERFORMED DURING THE SAME SHUT-DOWN PERIOD. ALL WORK REQUIRING SERVICE DISRUPTION SHALL BE COORDINATED WITH THE VA. A MINIMUM OF 2 WEEKS' NOTICE SHALL BE GIVEN FOR ANY AND ALL SERVICE DISRUPTIONS.

KEY NOTES

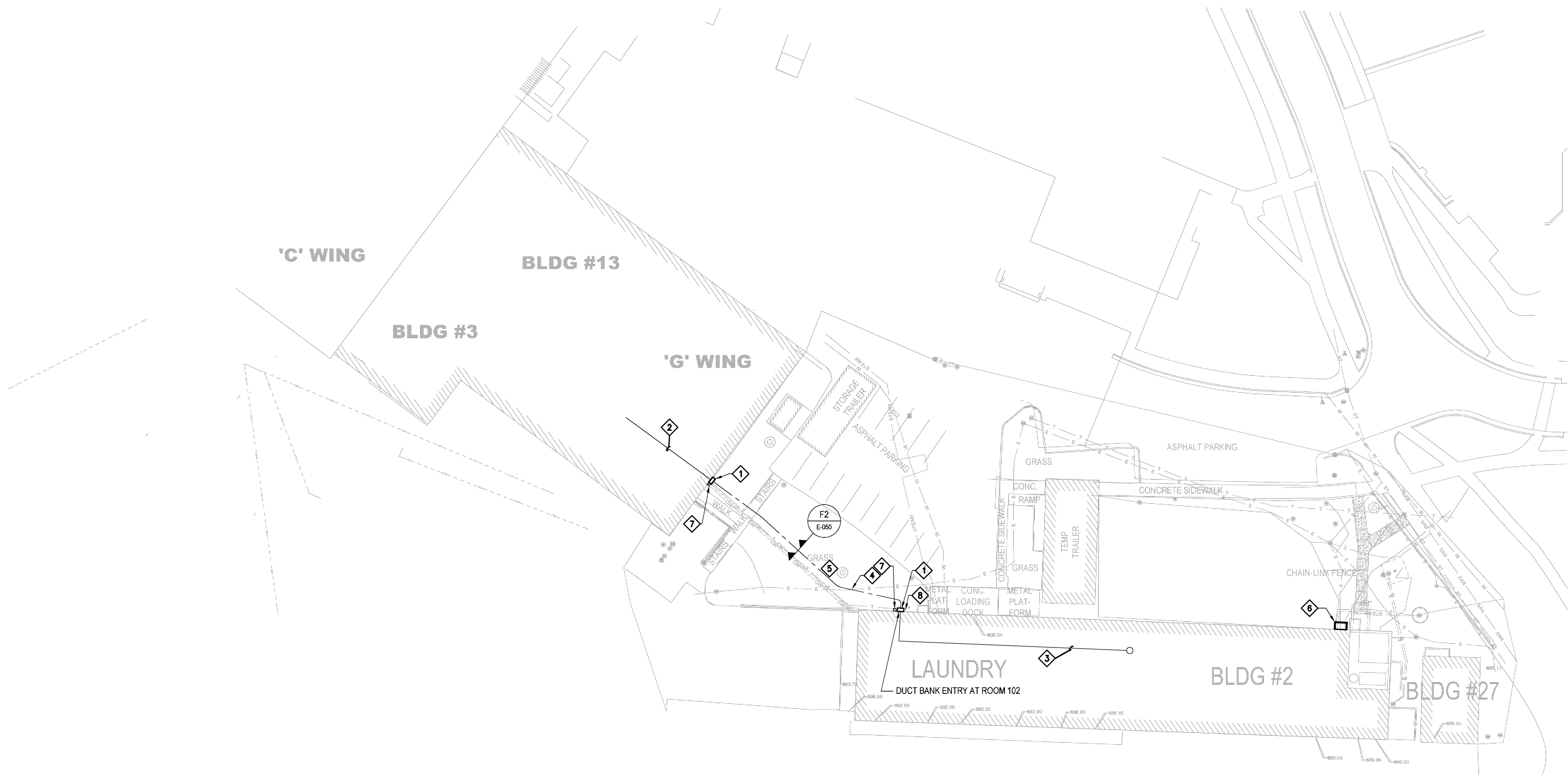
- 36" X 36" X 18" NEMA 4X STAINLESS STEEL PULL BOX ON OUTSIDE OF BUILDING FOR TERMINATION OF COMM. DUCT BANK. DUCTS TO RISE UP AND TERMINATE IN THE BOTTOM OF PULL BOX. STUB (6) 4" CONDUITS FROM PULL BOX INTO BUILDING.
- REFER TO SHEET ES-050 FOR CONTINUATION OF TELEPHONE, FIBER OPTIC, AND CATV CABLES TO MAIN TELECOMMUNICATION EQUIPMENT ROOM C-125.
- REFER TO SHEET ES-200 FOR CONTINUATION OF TELEPHONE, FIBER OPTIC, AND CATV CABLES TO TELE/COMM RM.211 IN BLDG. 2.
- COORDINATE INSTALLATION OF DUCT BANK TO CROSS UNDER EXISTING ELECTRICAL UTILITY.
- ROUTE DUCT BANK AROUND EXISTING TREE.
- PROVIDE 3' x 5' x 2' DEEP AREA WELL WITH GRATING TO PROTECT EXISTING CONDUITS AT EXTERIOR WALL.
- REMOVE EXISTING WALL MOUNTED JUNCTION BOXES AND UNDERGROUND TELEPHONE AND FIBER OPTIC CABLES BETWEEN BUILDINGS, AFTER NEW CABLES ARE INSTALLED, TESTED AND FULLY FUNCTIONAL.
- COORDINATE INSTALLATION OF DUCT BANK RISERS WITH EXISTING UNDERGROUND DUCT BANK ENTERING MANHOLE 506.



- DUCT BANK NOTES:**
- CONCRETE SHALL BE 2000 P.S.I. @ 28 DAYS, OR AS SPECIFIED.
 - PROVIDE REINFORCING RODS ON TOP AND BOTTOM OF DUCTS WHEN CROSSING OR PLACED IN ROADWAYS.
 - MINIMUM COVER TO TOP OF ENVELOPE SHALL BE 24" [610mm].

F2 DUCT BANK DETAILS

NTS



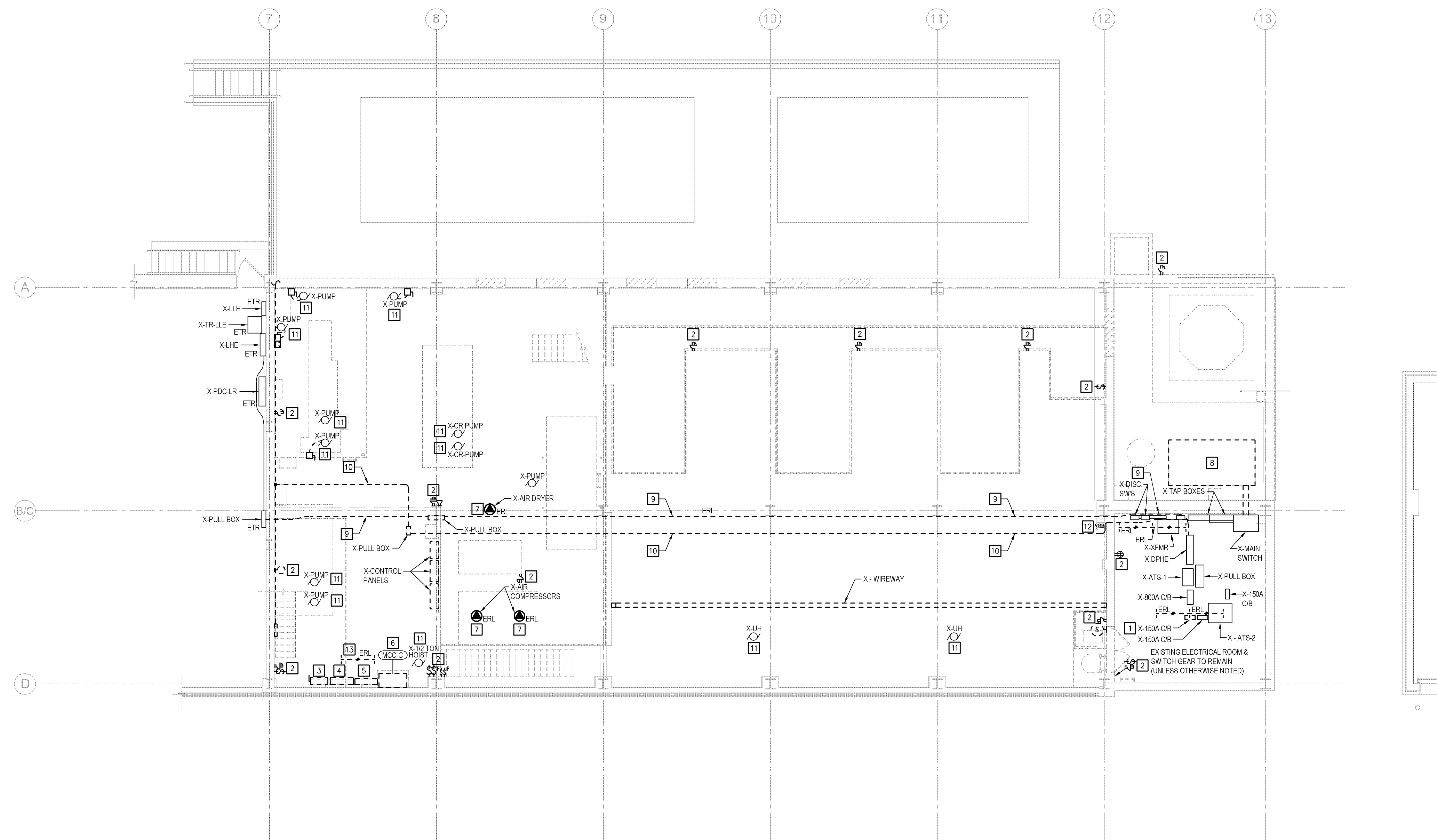
F1 Electrical Site Plan

1/32" = 1'-0"



100% CONSTRUCTION DOCUMENTS

Revisions:		Date		CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title		Project Title		Project Number		Office of Construction and Facilities Management	
								Electrical Site Plan		William S. Middleton VA Hospital Renovate Building 2		607-12-115		Department of Veterans Affairs	
								Approved: Project Director		Location		Building Number			
										Madison, WI		2			
										Date		Drawing Number			
										MARCH 28, 2013		E-050			
										Checked		Dwg. * of			
										DS					
										Drawn					
										JAL					



F1 FIRST LEVEL (EXISTING MEZZANINE) ELECTRICAL DEMOLITION PLAN
1/8" = 1'-0"



SHEET NOTES

1. EXISTING EQUIPMENT, SUCH AS LIGHTING FIXTURES, WIRING DEVICES CONDUITS, ETC., SHOWN ON PLANS TO BE REMOVED COMPLETELY. COORDINATE WITH THE VA TO REMOVE PERIMETER AND REMOVE CONDUITS WITH THE WORK AREA. DISCONNECT WIRING AT THE OVERCURRENT PROTECTIVE DEVICE AND REMOVE WIRING COMPLETELY FROM THE ABANDONED CONDUITS.
2. REMOVE ALL ACCESSIBLE ABANDONED WIRING OF ALL TYPES, OR CAP AND LABEL IN JUNCTION BOX FOR RE-USE, IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE.
3. MAINTAIN AND RESTORE, IF INTERRUPTED, ALL CONDUITS AND CONDUITSPASSING THROUGH RENOVATED AREAS AND SERVING UNDISTURBED AREAS.
4. ALL MECHANICAL, PLUMBING, OR ELECTRICAL WORK THAT IS REQUIRED DURING THE RENOVATION OF BUILDING 2 THAT WILL IMPACT THE LAUNDRY OPERATIONS SHALL BE SCHEDULED BETWEEN MON ON FRIDAYS TO 7:00 AM ON MONDAY (WEEKEND WORK ONLY). COORDINATE WORK BETWEEN THE CONTRACTORS THAT WILL BE PERFORMING THE WORK TO BE PERFORMED DURING THE SAME SHUT-DOWN PERIOD. ALL WORK REQUIRING SERVICE DISRUPTION SHALL BE COORDINATED WITH THE VA. A MINIMUM OF 2 WEEKS' NOTICE SHALL BE GIVEN FOR ANY AND ALL SERVICE DISRUPTIONS.




DEMOLITION NOTES

1. REMOVE EXISTING 1500 ENCLOSED CIRCUIT BREAKER (TRANSFER SW 2 LINE DISCONNECT) AND ASSOCIATED TAP FEEDER FROM EXISTING MAIN SWITCH AND FEEDER TO EXISTING ATS-2.
2. REMOVE EXISTING DEVICE AND ASSOCIATED BRANCH CIRCUIT CONDUIT AND WIRING.
3. REMOVE EXISTING SECONDARY SERVICE ENTRANCE SWITCH AND 400A FEEDER.
4. REMOVE EXISTING UTILITY METERING CURRENT TRANSFORMER CABINET AND METER SOCKET.
5. REMOVE EXISTING DISTRIBUTION PANEL "MD" AND ALL ASSOCIATED BRANCH CIRCUIT CONDUIT AND WIRING..
6. REMOVE EXISTING MOTOR CONTROL CENTER "MCC-C" AND ALL ASSOCIATED MOTOR CIRCUITS.
7. EXISTING AIR COMPRESSORS AND AIR DRYER TO BE RELOCATED.
8. EXISTING 13.8 KV HIGH VOLTAGE SWITCH, 13.8 KV TO 800/277V TRANSFORMER AND BUS DUCT CONNECTION TO 800A MAIN SWITCH TO BE REMOVED AND REPLACED WITH A NEW FEEDER TO BUILDING 2 UNDER A SEPARATE CONTRACT.
9. EXISTING 400A FEEDER FOR PANEL "PDG-LHE" TO BE REPLACED WITH NEW FEEDER, ROUTED AS REQUIRED TO ACCOMMODATE NEW BUILDING CONNECTION.
10. EXISTING 200A FEEDER FOR PANEL "HR" TO BE REPLACED WITH NEW FEEDER, ROUTED AS REQUIRED TO ACCOMMODATE NEW BUILDING CONNECTION.
11. DISCONNECT AND REMOVE EXISTING BRANCH CIRCUIT AND ASSOCIATED STARTERS AND DISCONNECT SWITCHES SERVING MECHANICAL OR PLUMBING EQUIPMENT BEING REMOVED.
12. EXISTING CONDUIT RISERS TO REMAIN.
13. REMOVE FIXTURE AND REINSTALL IN LOCATION WHERE SHOWN ON FV1 EL 200. FIXTURE SHALL BE CLEANED, RELAMPED AND REBALLASTED PRIOR TO REINSTALLATION.

[illegible]



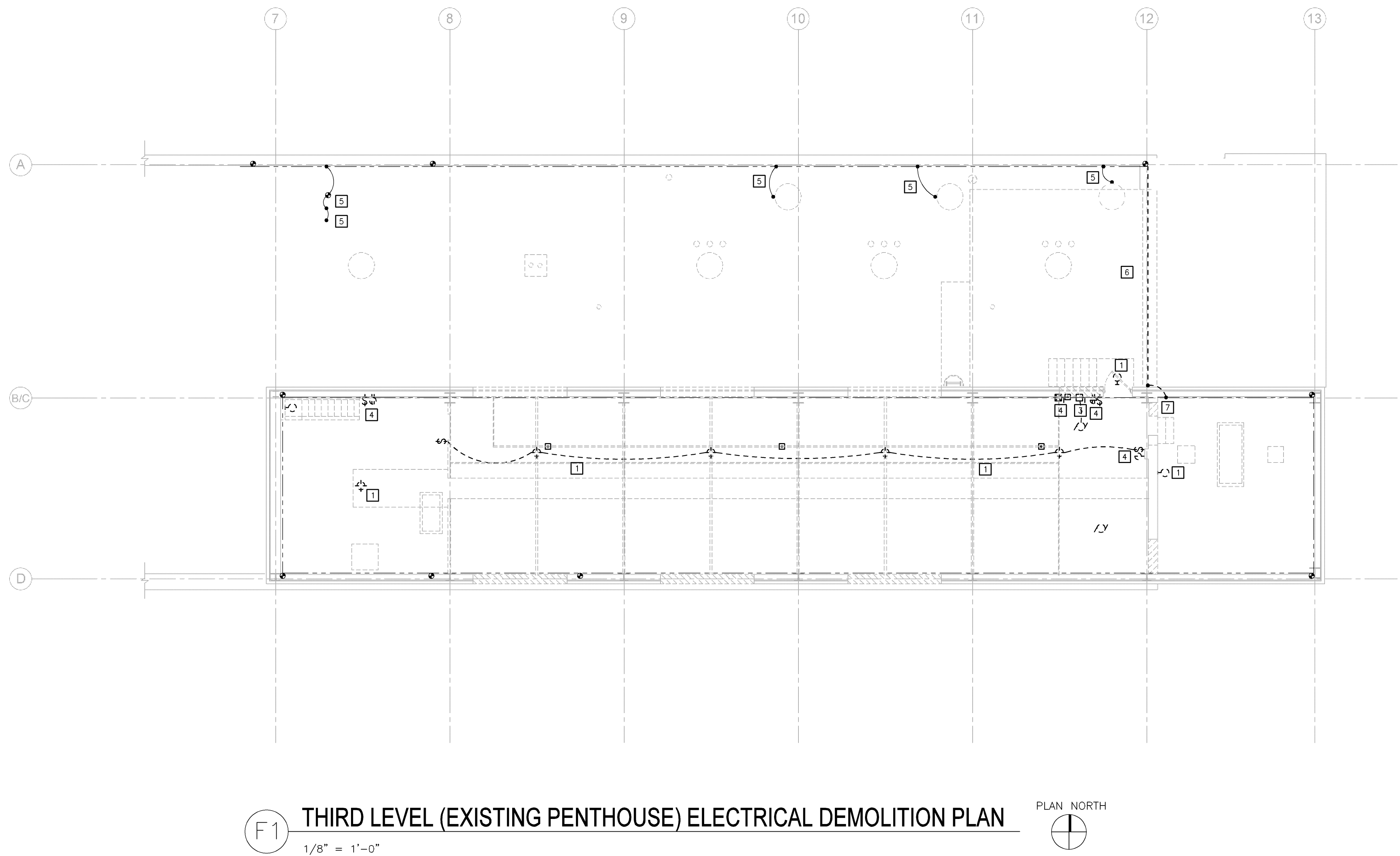
PLAN NORTH

		CONSULTANTS: Revisions: _____ Date _____	ARCHITECT/ENGINEERS: 13100 watertown plank road suite 200 elm grove, wi 53122 p 262.641.0746 f 262.641.0584   <small>NB W22195 JOHNSON DR, STE 180 262.549.1190 WAUKESHA, WI 53186 fx 262.549.1620</small>	Drawing Title Second Level Electrical Demolition Plan	Project Title William S. Middleton VA Hospital Renovate Building 2	Project Number 607-12-115	Office of Construction and Facilities Management  Department of Veterans Affairs	
				Building Number 2	Location Madison, WI	Drawing Number E-102 Dwg. * of		
				Approved: Project Director	Date MARCH 29, 2013	Checked DS		Drawn JAL

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

- ### SHEET NOTES
- EXISTING EQUIPMENT, SUCH AS LIGHTING FIXTURES, WIRING DEVICES, CONDUITS, ETC., SHOWN ON PLANS TO BE REMOVED COMPLETELY. CUT/CAP CONDUITS AT THE AREA OF WORK PERIMETER AND REMOVE CONDUIT WITH IN THE WORK AREA. DISCONNECT WIRING AT THE OVERCURRENT PROTECTIVE DEVICE AND REMOVE WIRING COMPLETELY FROM THE ABANDONED CONDUITS.
 - REMOVE ALL ACCESSIBLE ABANDONED WIRING OF ALL TYPES, OR CAP AND LABEL IN JUNCTION BOX FOR RE-USE, IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE.
 - MAINTAIN AND RESTORE, IF INTERRUPTED, ALL CONDUITS AND CONDUCTORS PASSING THROUGH RENOVATED AREAS AND SERVICING UNDISTURBED AREAS.

- ### DEMOLITION NOTES
- DISCONNECT AND REMOVE ALL CONDUIT, AND WIRING AND LIGHTING FIXTURES.
 - NOT USED.
 - DISCONNECT AND REMOVE MOTORS AND DISCONNECT SWITCH.
 - DISCONNECT AND REMOVE ALL DEVICES AND ALL CONDUIT AND WIRING FOR DEVICES.
 - DISCONNECT AND REMOVE LIGHTNING PROTECTION CONNECTION TO EXISTING MECHANICAL EQUIPMENT BEING REMOVED.
 - DISCONNECT AND REMOVE PORTION OF HORIZONTAL LIGHTNING PROTECTION CABLE RUNNING ALONG EAST ROOF PARAPET.
 - DISCONNECT AND REMOVE LIGHTNING PROTECTION VERTICAL CABLE CONNECTION BETWEEN UPPER AND LOWER ROOFS.

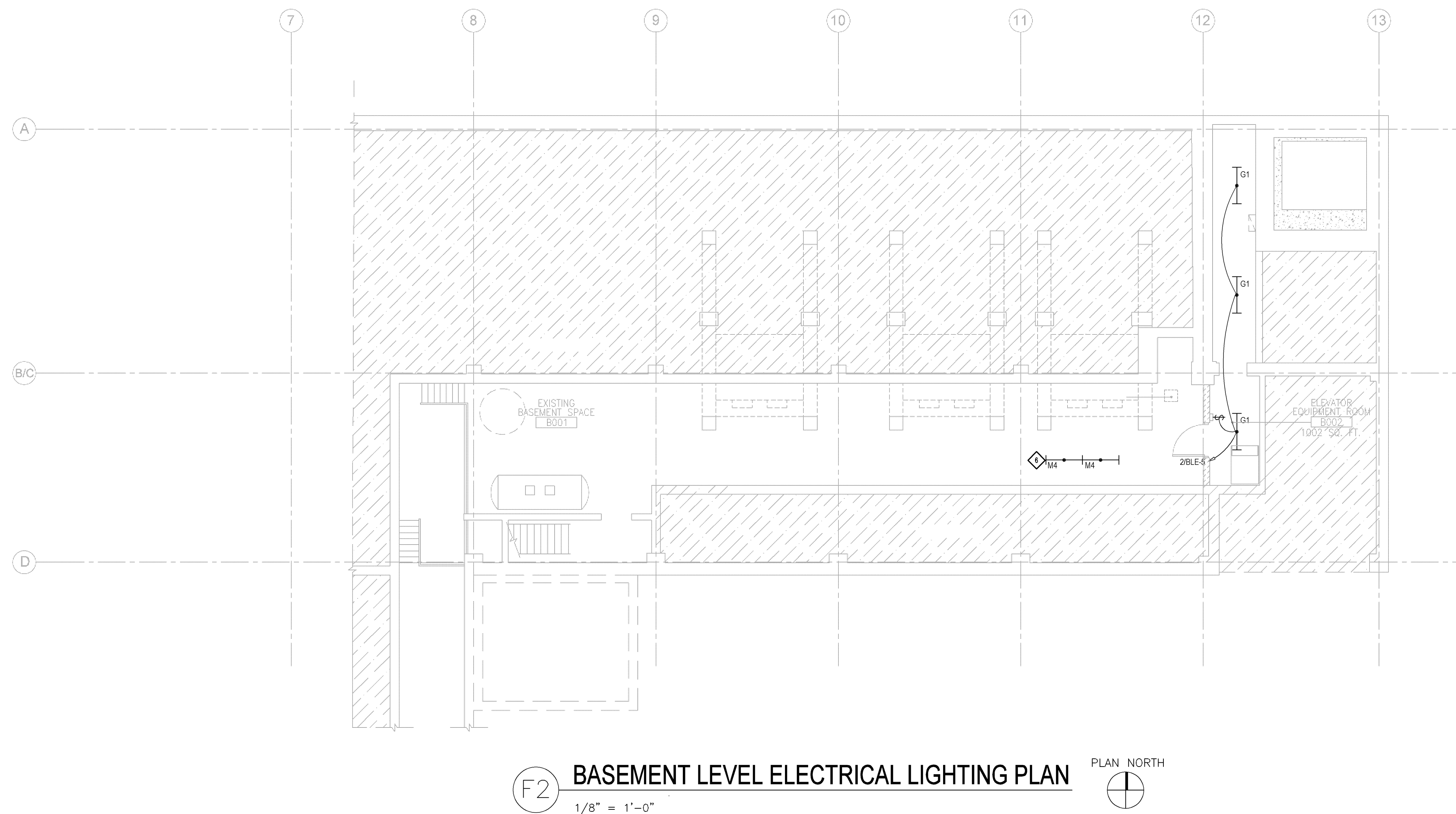
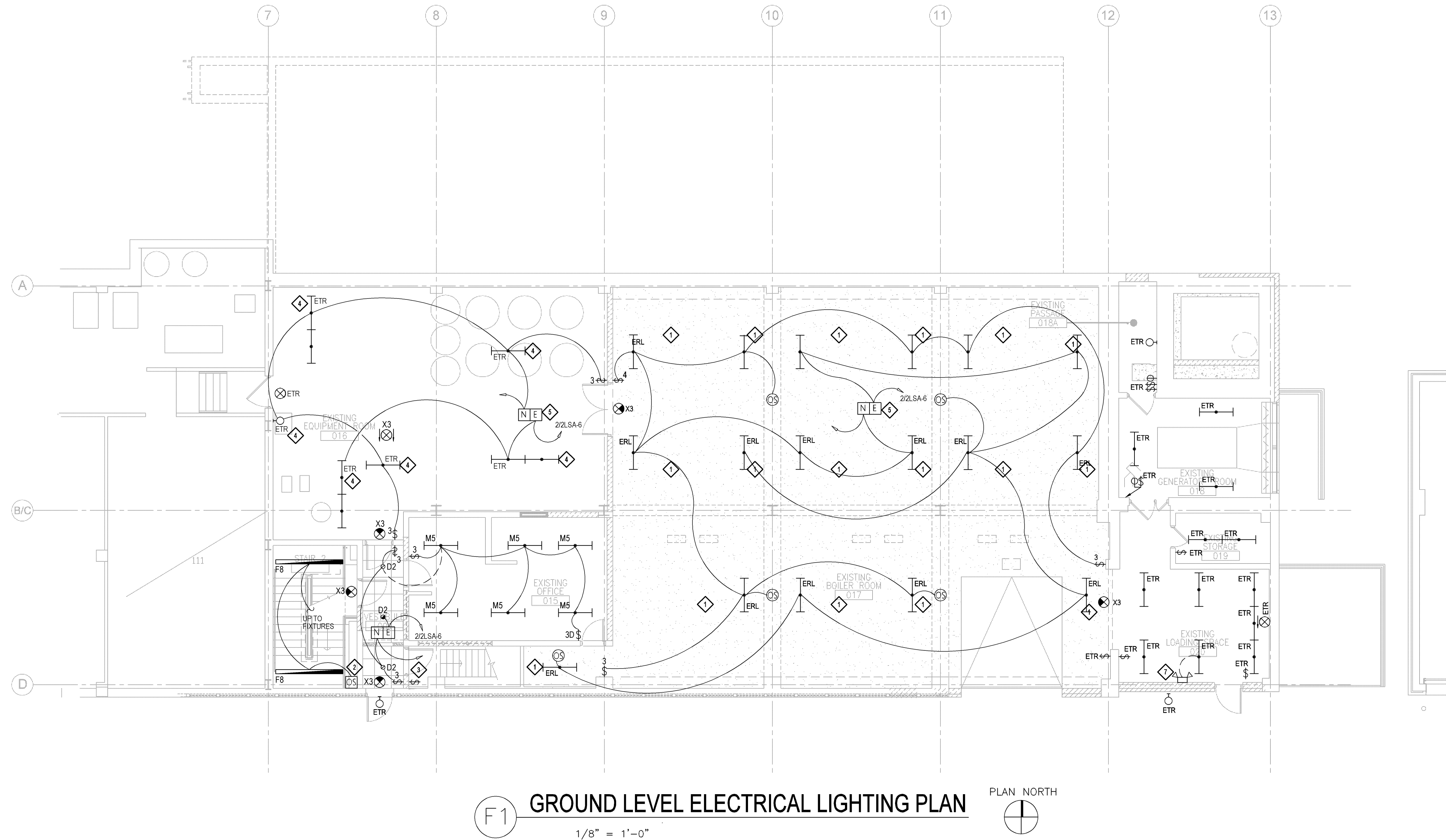


F1 THIRD LEVEL (EXISTING PENTHOUSE) ELECTRICAL DEMOLITION PLAN
1/8" = 1'-0"



Revisions:		Date		CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title		Project Title		Project Number		Office of Construction and Facilities Management	
						13100 watertown plank road suite 200 elm grove, wi 53122 p 262.641.0746 f 262.641.0584		Third Level (Existing Penthouse) Electrical Demolition Plan		William S. Middleton VA Hospital Renovate Building 2		607-12-115		Department of Veterans Affairs	
						magel architects		Approved: Project Director		Location		Building Number			
						IBC ENGINEERING SERVICES INC.				Madison, WI		2			
						N8 W22195 JOHNSON DR. STE 180 262.549.1190 WAUKESHA, WI 53186				Date		Checked		Drawn	
										MARCH 28, 2013		DS		JAL	
												Drawing Number			
												E-103			
												Dwg. * of			

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



SHEET NOTES

1. ALL OCCUPANCY SENSORS INSTALLED IN STAIRWELLS SHALL BE "FAIL-ON" UPON LOSS OF POWER.
2. COORDINATE LOCATIONS OF LIGHT FIXTURES WITH CEILING PLANS, DUCTWORK AND PIPING OF OTHER TRADES, ETC.
3. ALL NEW EXIT SIGNS SHOWN ON THIS SHEET SHALL BE WIRED TO 22LSA-8, UNLESS NOTED OTHERWISE.
4. EXISTING J-BOXES AND CONDUITS ON GROUND FLOOR CEILING TO BE RELOCATED/ SUSPENDED BELOW NEW SPRAY-ON INSULATION. PROVIDE SUSPENSION RODS AS REQUIRED.
5. ALL MECHANICAL, PLUMBING, OR ELECTRICAL WORK THAT REQUIRES SERVICE DISRUPTIONS IN BUILDING 2 THAT WILL IMPACT THE LAUNDRY OPERATIONS SHALL BE SCHEDULED BETWEEN NOON ON FRIDAYS TO 7:00 AM ON MONDAY (WEEKEND WORK ONLY). COORDINATE WORK BETWEEN TRADES SO THAT WORK OF MULTIPLE TRADES CAN BE PERFORMED DURING THE SAME SHUT-DOWN PERIOD. ALL WORK REQUIRING SERVICE DISRUPTION SHALL BE COORDINATED WITH THE VA. A MINIMUM OF 2 WEEKS NOTICE SHALL BE GIVEN FOR ANY AND ALL SERVICE DISRUPTIONS.

KEY NOTES

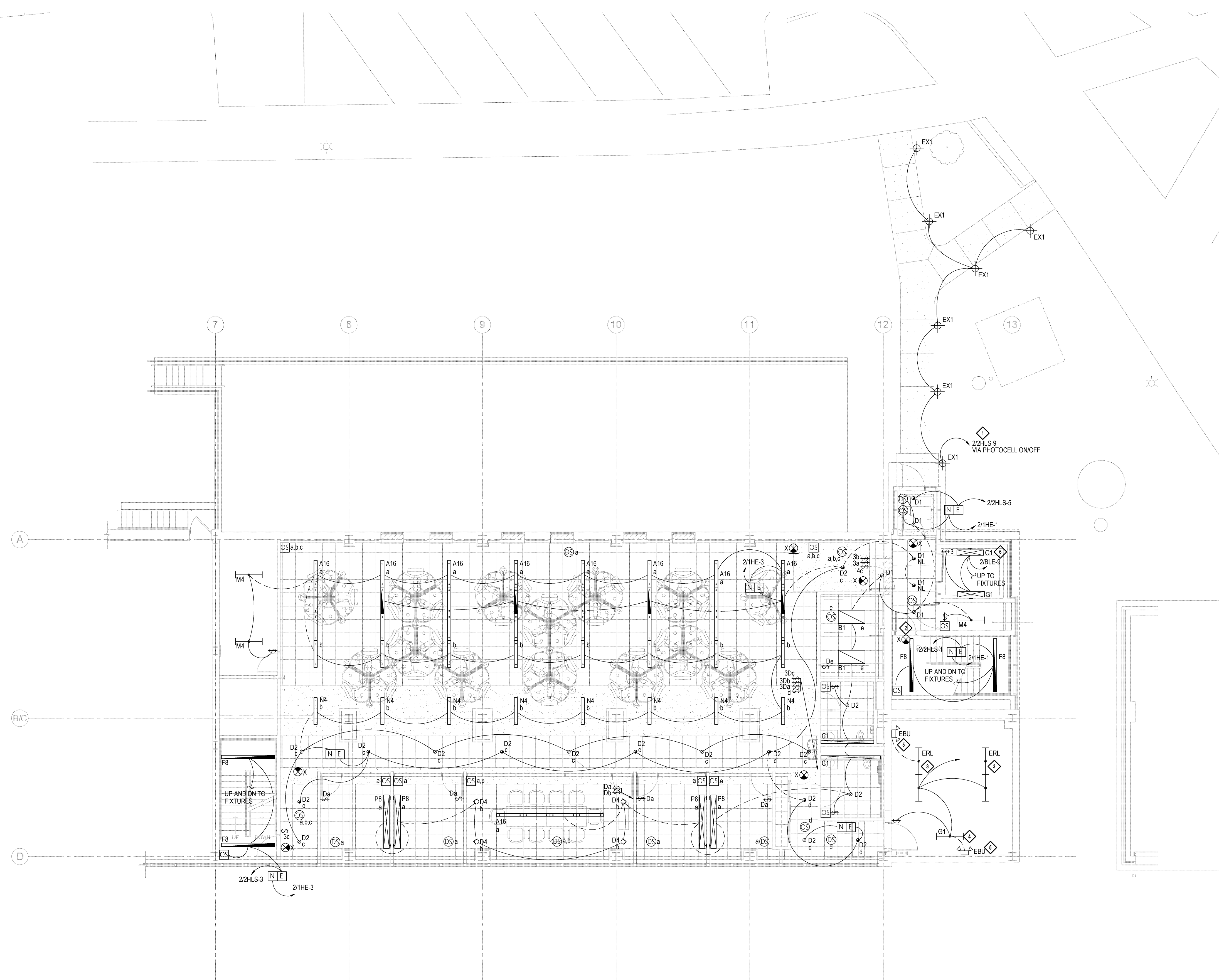
- ◆ REINSTALL FIXTURE AND REWIRE AS SHOWN. FIXTURE SHALL BE CLEANED, RELAMPED AND REBALLASTED PRIOR TO REINSTALLATION. COORDINATE FIXTURE LOCATIONS WITH EXPOSED PLUMBING, HVAC AND OTHER TRADES IN SPACE.
- ◆ OCCUPANCY SENSORS IN STAIRWELLS SHALL BE WIRED IN SERIES SO THAT IF ANY OCCUPANCY SENSOR ON ANY LEVEL SENSES OCCUPANCY, ALL LIGHTS IN THE STAIR TURN "ON".
- ◆ EXTEND EXISTING WIRING FOR NEW SWITCH SERVING FIXTURE IN BASEMENT STAIRWELL.
- ◆ REWIRE EXISTING FIXTURES AS SHOWN.
- ◆ MOUNT EMERGENCY POWER TRANSFER DEVICE IN AN ACCESSIBLE LOCATION WITHIN MANUFACTURER'S REMOTE MOUNTING DISTANCE. LABEL DEVICE WITH CIRCUIT AND AREA CONTROLLED.
- ◆ EXTEND EXISTING CIRCUIT AND CONTROL SERVING ROOM LIGHTING TO NEW FIXTURE.
- ◆ WIRE NEW EBU TO UNSWITCHED PORTION OF CIRCUIT SERVING ROOM. FIELD VERIFY EXACT LOCATION.

100% CONSTRUCTION DOCUMENTS

Revisions:		Date		CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title		Project Title		Project Number		Office of	
								Basement and Ground Level		William S. Middleton VA Hospital		607-12-115		Construction	
								Electrical Lighting Plans		Renovate Building 2		Building Number		and Facilities	
								Approved: Project Director		Location		2		Management	
										Madison, WI		Drawing Number			
										Date		EL-200			
										MARCH 29, 2013		Dwg. * of			
										Checked					
										DS					
										Drawn					
										JAL					

BASEMENT LEVEL ELECTRICAL EMERGENCY LIGHTING PLAN

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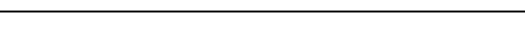
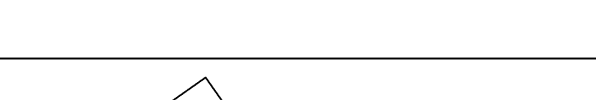
F1 FIRST LEVEL ELECTRICAL LIGHTING PLAN
1/8" = 1'-0" PLAN NORTH

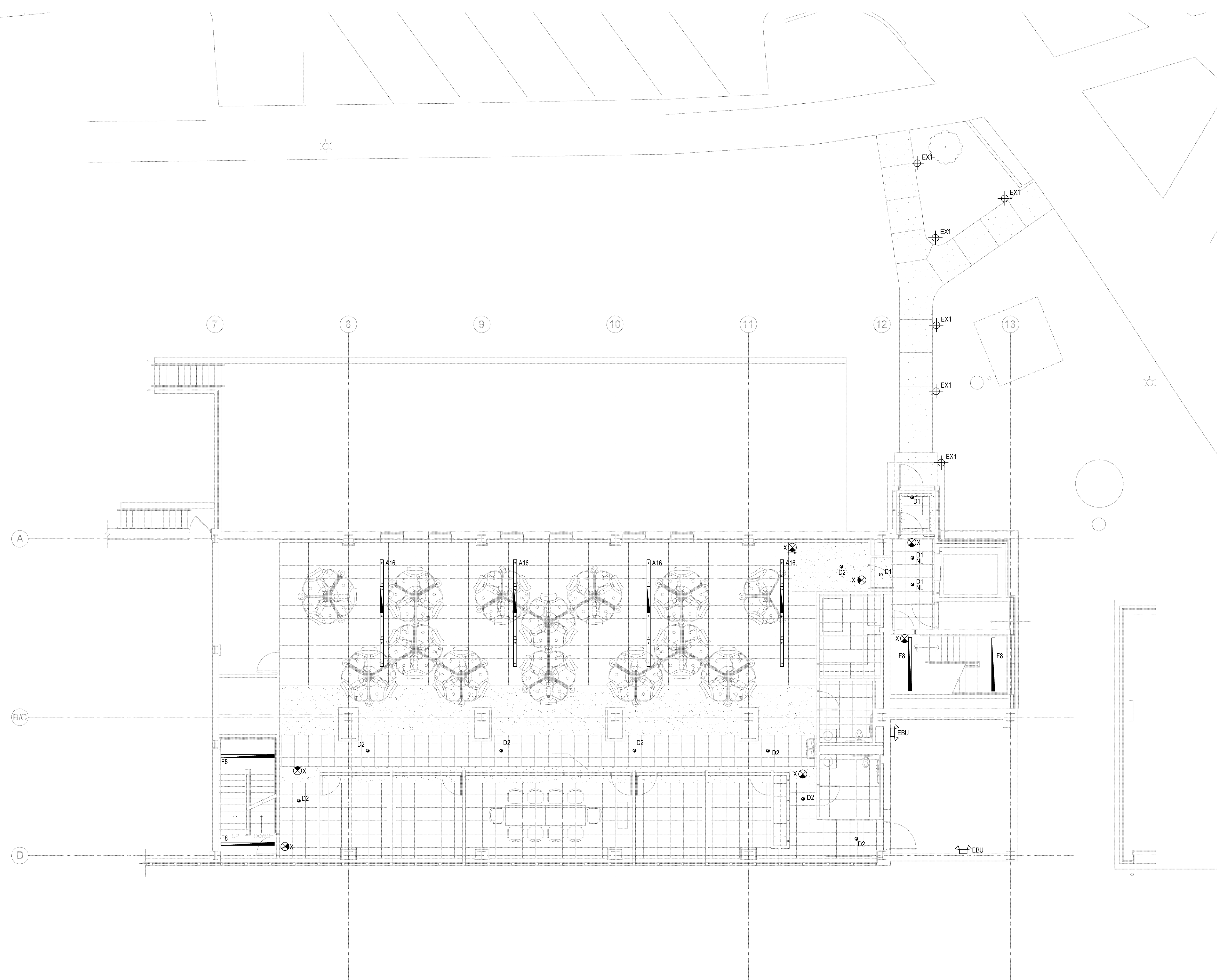
- SHEET NOTES

1. ALL OCCUPANCY SENSORS INSTALLED IN STAIRWELLS SHALL BE "FAIL-ON" UPON LOSS OF POWER.
2. COORDINATE LOCATIONS OF LIGHT FIXTURES WITH CEILING PLANS, DUCTWORK AND PIPING OF OTHER TRADES, ETC.
3. ALL NEW EXIT SIGNS SHOWN ON THIS SHEET SHALL BE WIRED TO 24H/24-7, UNLESS NOTED OTHERWISE.
4. ALL MECHANICAL, PLUMBING OR ELECTRICAL WORK THAT REQUIRES SERVICE OPERATIONS IN BUILDING 2 THAT WILL IMPACT THE LAUNDRY OPERATIONS SHALL BE SCHEDULED BETWEEN 11:00AM ON-FRIDAY TO 7:00 AM ON MONDAY (WEEKEND WORK ONLY). COORDINATE WORK BETWEEN TRADES SO THAT WORK CAN BE COMPLETED IN ONE PERFORMED DURING THE SAME SHUT-DOWN PERIOD. ALL WORK REQUIRING SERVICE DISRUPTION SHALL BE COORDINATED WITH THE D.A. A MINIMUM OF 2 WEEKS NOTICE MUST BE GIVEN FOR ALL SERVICE DISRUPTIONS.

KEY NOTES

- ① PROVIDE 1" CONDUIT AND #10 CONDUCTORS FOR WIRING OF BOLLARDS.
- ② WALL MOUNT BOTTOM OF FIXTURE 0'-5" ABOVE DOOR OPENING.
- ③ RELOCATE EXISTING FIXTURES TO NEW LOCATION. WIRE TO EXISTING CIRCUIT SERVING ROOM. FIXTURES SHALL BE CLEANED, RELAMPED AND REBALLASTED PRIOR TO REINSTALLATION.
- ④ WIRE FIXTURE TO EXISTING CIRCUIT SERVING ROOM.
- ⑤ WIRE EMERGENCY BATTERY UNIT (EBU) TO UNSWITCHED PORTION OF NORMAL BRANCH CIRCUIT SERVING ROOM.
- ⑥ MOUNT FIXTURES 4" ABOVE BOTTOM OF ELEVATOR PIT. FIELD VERIFY EXACT LOCATION. TYPICAL OF (2) TYPE G1 FIXTURES IN PIT.

		CONSULTANTS:				ARCHITECT/ENGINEERS:		Drawing Title First Level Electrical Lighting Plan		Project Title William S. Middleton VA Hospital Renovate Building 2		Project Number 607-12-115		Office of Construction and Facilities Management			
						13100 watertown plank road suite 200 elm grove, wi 53122 p 262.641.0746 f 262.641.0584		 		Building Number 2		Location Madison, WI				Drawing Number EL-201	
Revisions:		Date						Approved: Project Director		Date MARCH 29, 2013		Checked DS		Drawn JAL		Dwg. * of	



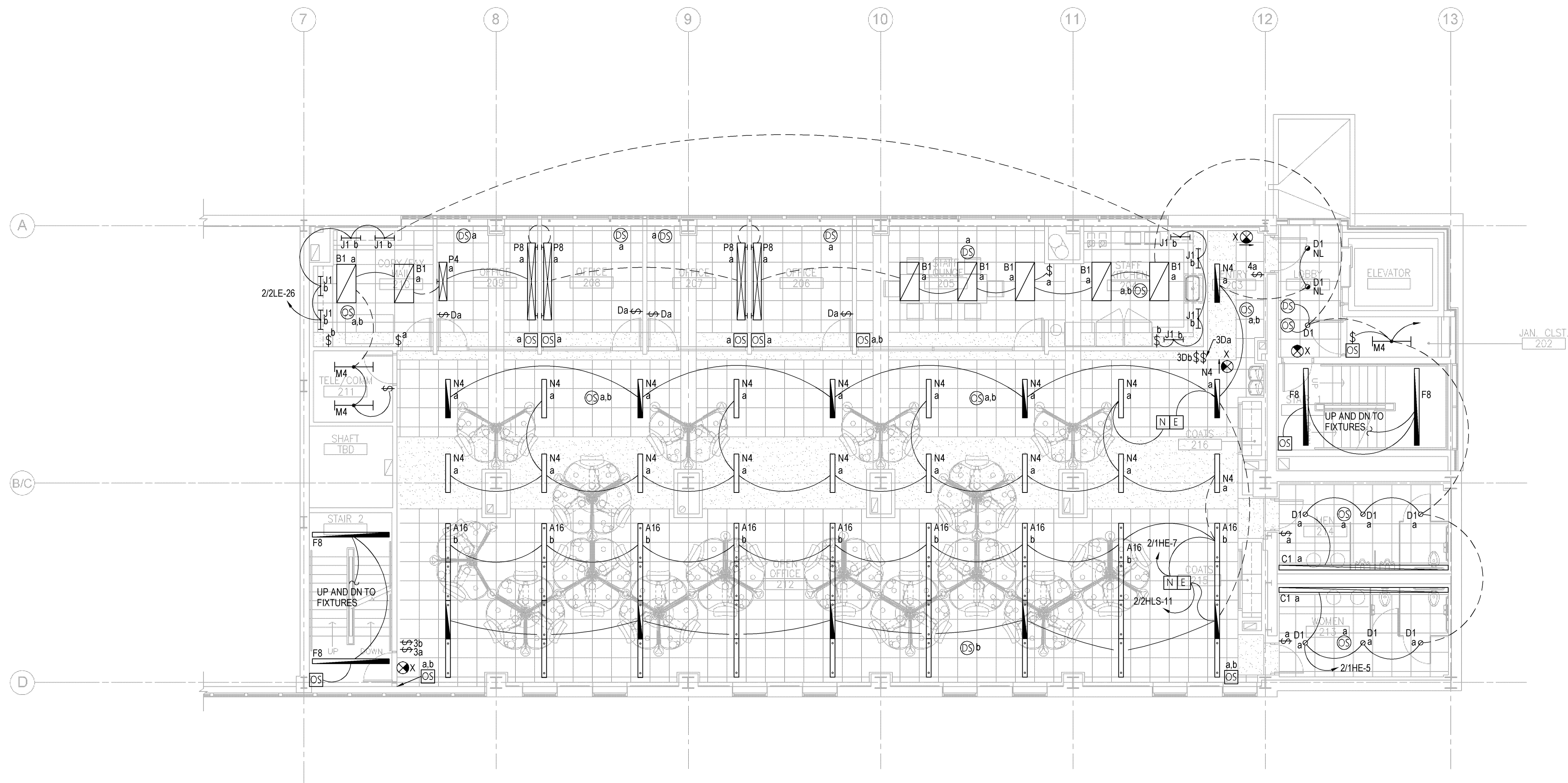
F1 FIRST LEVEL ELECTRICAL EMERGENCY LIGHTING PLAN PLAN NORTH
1/8" = 1'-0"

[illegible]

three inches = one foot
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one inch = one foot
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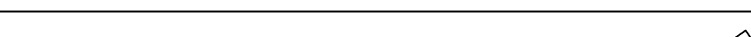
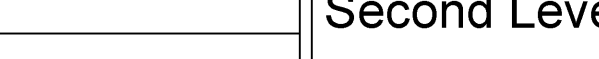

SHEET NOTES

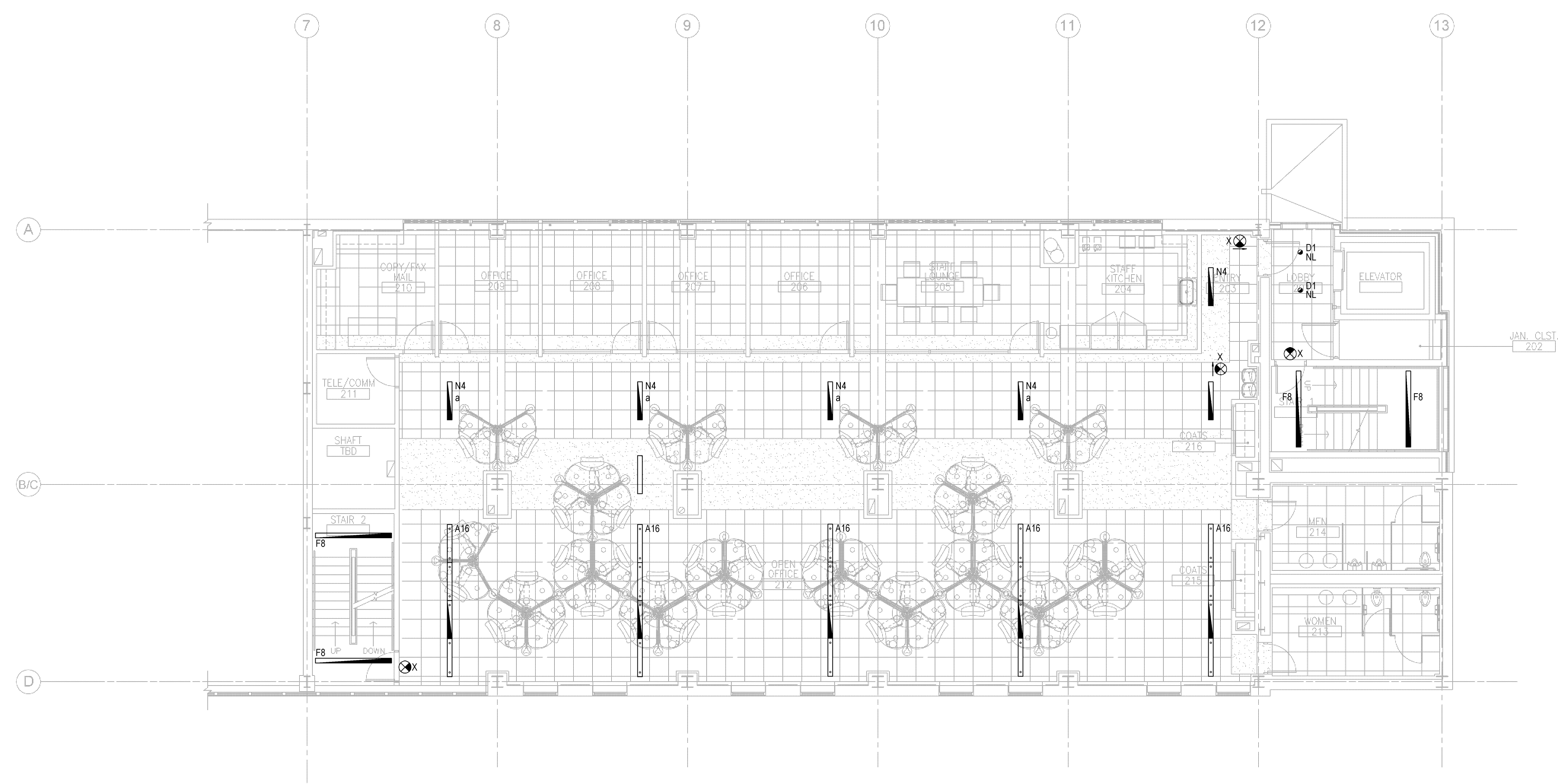
1. ALL OCCUPANCY SENSORS INSTALLED IN STAIRWELLS SHALL BE "FAIL-ON" UPON LOSS OF POWER.
2. COORDINATE LOCATIONS OF LIGHT FIXTURES WITH CEILING PLANS, DUCTWORK AND PIPING OF OTHER TRADES, ETC.
3. ALL NEW EXIT SIGNS SHOWN ON THIS SHEET SHALL BE WIRED TO 2/2HLS-13, UNLESS NOTED OTHERWISE.
4. ALL MECHANICAL, PLUMBING, OR ELECTRICAL WORK THAT REQUIRES SERVICE DISRUPTIONS IN BUILDING 2 THAT WILL IMPACT THE LAUNDRY OPERATIONS SHALL BE SCHEDULED BETWEEN NOON ON FRIDAYS TO 7:00 AM ON MONDAY (WEEKEND WORK ONLY). COORDINATE WORK BETWEEN TRADES SO THAT WORK OF MULTIPLE TRADES CAN BE PERFORMED DURING THE SAME SHUT-DOWN PERIOD. ALL WORK REQUIRING SERVICE DISRUPTION SHALL BE COORDINATED WITH THE VA. A MINIMUM OF 2 WEEKS NOTICE SHALL BE GIVEN FOR ANY AND ALL SERVICE DISRUPTIONS.



F1 SECOND LEVEL ELECTRICAL LIGHTING PLAN PLAN NORTH
1/8" = 1'-0"

100% CONSTRUCTION DOCUMENTS

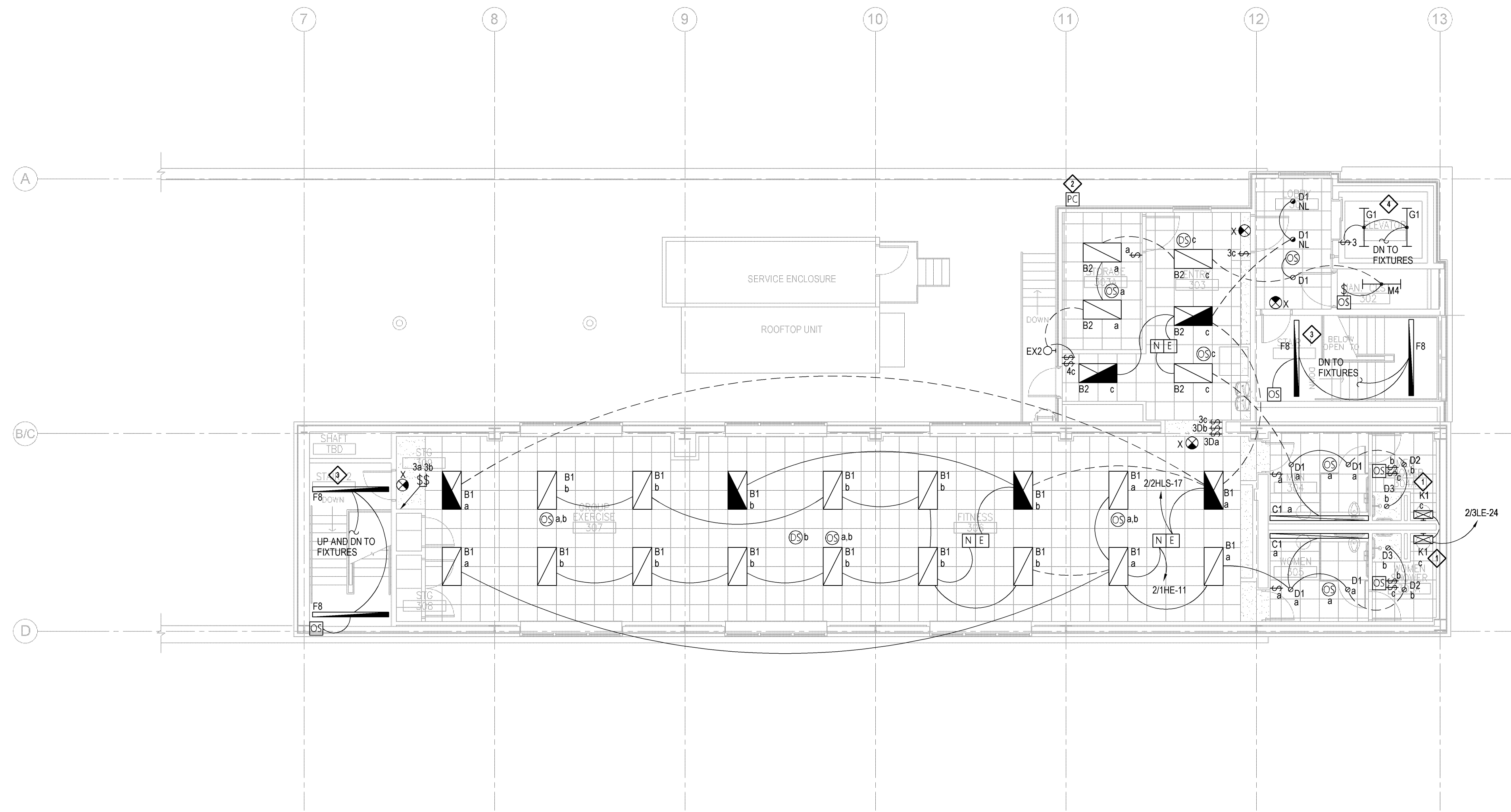
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						13100 watertown plank road suite 200 elm grove, wi 53122 p 262.641.0746 f 262.641.0584						Building Number 2			
								Approved: Project Director		Location Madison, WI		Drawing Number EL-202		 Department of Veterans Affairs	
Revisions:		Date								Date MARCH 29, 2013		Checked DS			
												Dwg. * of			



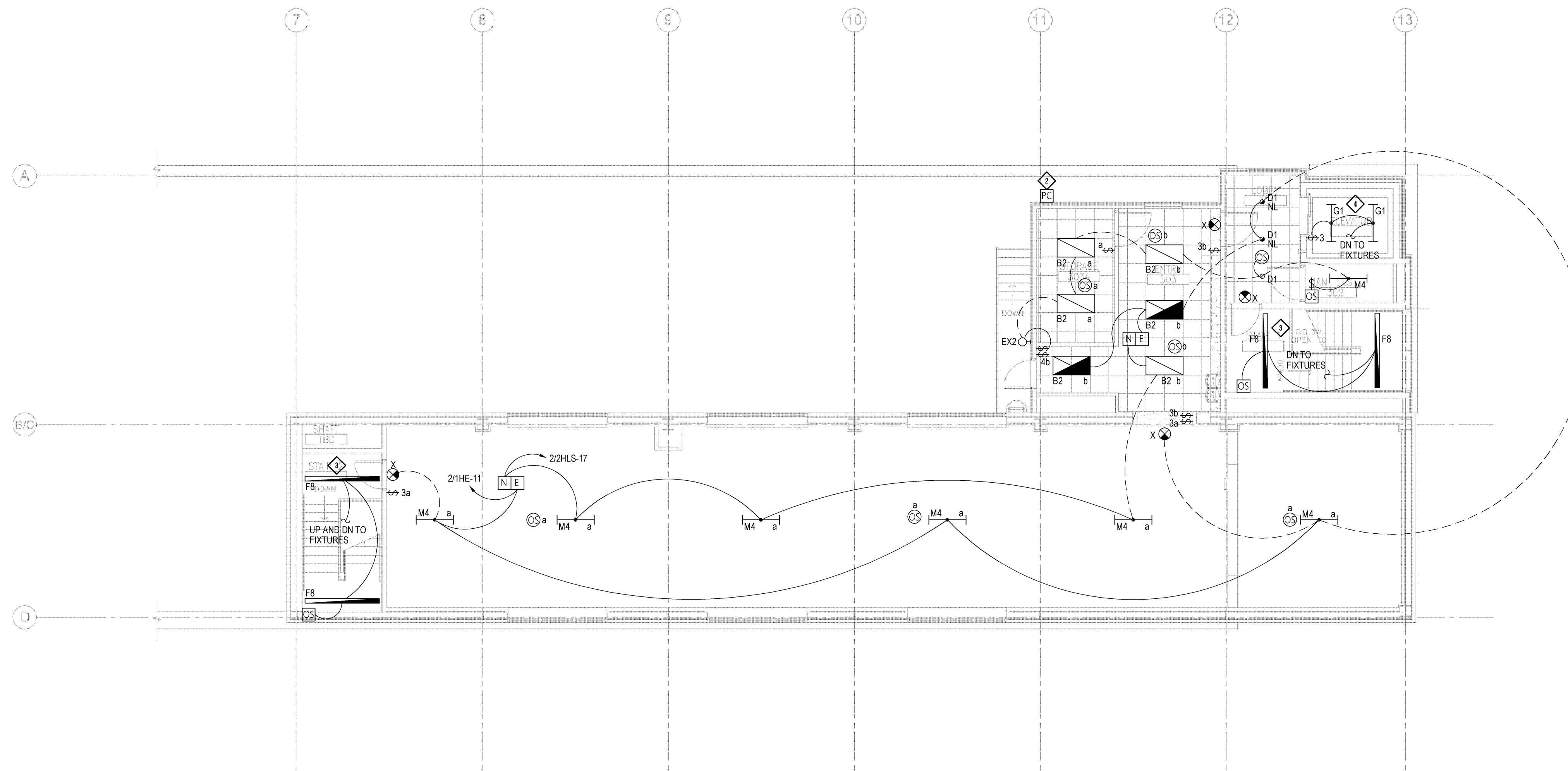
SECOND LEVEL ELECTRICAL EMERGENCY LIGHTING PLAN

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three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



F1 THIRD LEVEL ELECTRICAL LIGHTING PLAN
1/8" = 1'-0"



F2 THIRD LEVEL ELECTRICAL LIGHTING PLAN - ALTERNATE #1
1/8" = 1'-0"

SHEET NOTES

1. ALL OCCUPANCY SENSORS INSTALLED IN STAIRWELLS SHALL BE "FAIL-ON" UPON LOSS OF POWER.
2. COORDINATE LOCATIONS OF LIGHT FIXTURES WITH CEILING PLANS, DUCTWORK AND PIPING OF OTHER TRADES, ETC.
3. ALL NEW EXIT SIGNS SHOWN ON THIS SHEET SHALL BE WIRED TO 2/2HLS-19, UNLESS NOTED OTHERWISE.
4. ALL MECHANICAL, PLUMBING, OR ELECTRICAL WORK THAT REQUIRES SERVICE DISRUPTIONS IN BUILDING 2 THAT WILL IMPACT THE LAUNDRY OPERATIONS SHALL BE SCHEDULED BETWEEN NOON ON FRIDAYS TO 7:00 AM ON MONDAY (WEEKEND WORK ONLY). COORDINATE WORK BETWEEN TRADES SO THAT WORK OF MULTIPLE TRADES CAN BE PERFORMED DURING THE SAME SHUT-DOWN PERIOD. ALL WORK REQUIRING SERVICE DISRUPTION SHALL BE COORDINATED WITH THE VA. A MINIMUM OF 2 WEEKS NOTICE SHALL BE GIVEN FOR ANY AND ALL SERVICE DISRUPTIONS.

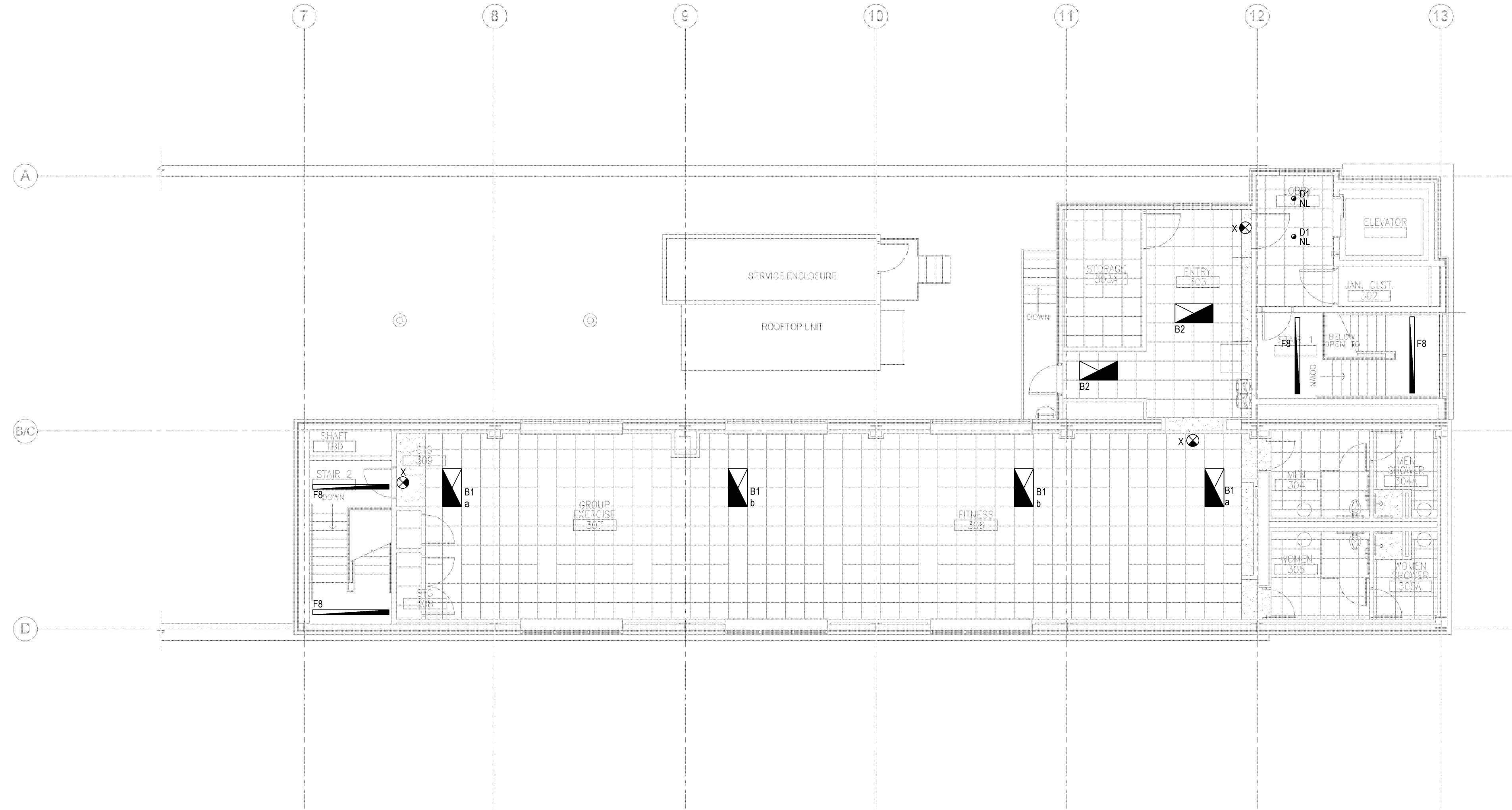
KEY NOTES

- ◇ MOUNT FIXTURE 0'-6" ABOVE TOP OF MIRROR.
- ◇ PHOTOCELL CONTROLLING EXTERIOR BOLLARDS. MOUNT DEVICE IN ACCESSIBLE LOCATION, AS HIGH AS POSSIBLE ON WALL AND PER MANUFACTURER'S RECOMMENDATIONS.
- ◇ PROVIDE AN ADDITIONAL F8 FIXTURE SURFACE MOUNTED TO INTERMEDIATE LANDING BELOW.
- ◇ MOUNT FIXTURES TO ELEVATOR SHAFT CEILING. FIELD VERIFY AND COORDINATE EXACT LOCATION WITH ELEVATOR CLEARANCES, MOUNTING HARDWARE AND EQUIPMENT.

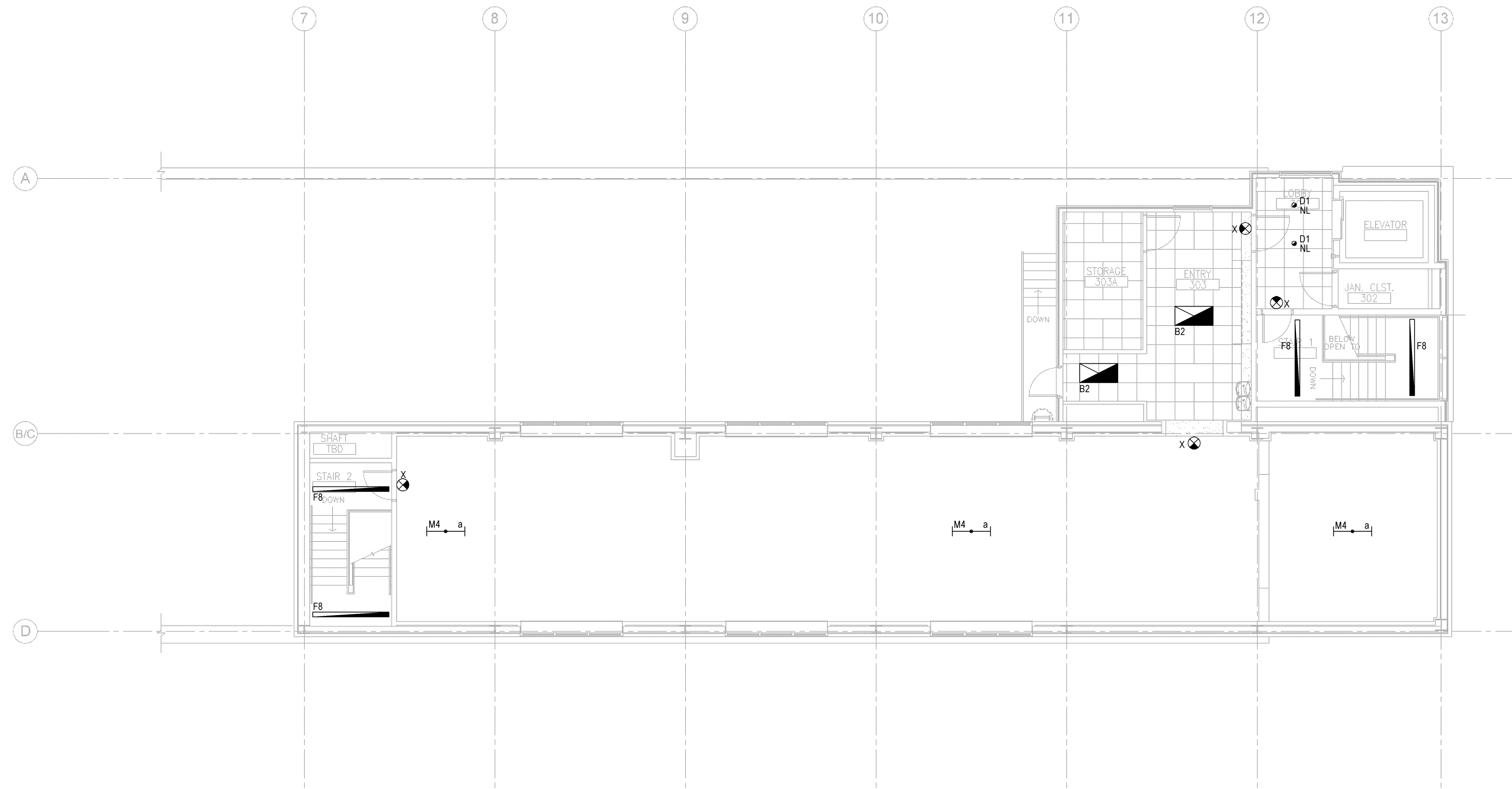
100% CONSTRUCTION DOCUMENTS

CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title	Project Title	Project Number	Office of Construction and Facilities Management	
				Third Level Electrical Lighting Plan	William S. Middleton VA Hospital Renovate Building 2	607-12-115		
Revisions:		13100 watertown plank road suite 200 elm grove, wi 53122 p 262.641.0746 f 262.641.0584		Approved: Project Director	Location Madison, WI	Building Number 2	Dwg. * of	
Date		magel architects			Date MARCH 29, 2013	Drawn JAL.		
		IBC ENGINEERING SERVICES INC.			Checked DS	Drawn JAL.	Department of Veterans Affairs	

one eighth inch = one foot
one quarter inch = one foot
three eighths inch = one foot
one half inch = one foot
three quarters inch = one foot
one inch = one foot
one and one half inches = one foot
two inches = one foot
three inches = one foot
four inches = one foot
six inches = one foot
eight inches = one foot
ten inches = one foot
twelve inches = one foot
one foot = one foot



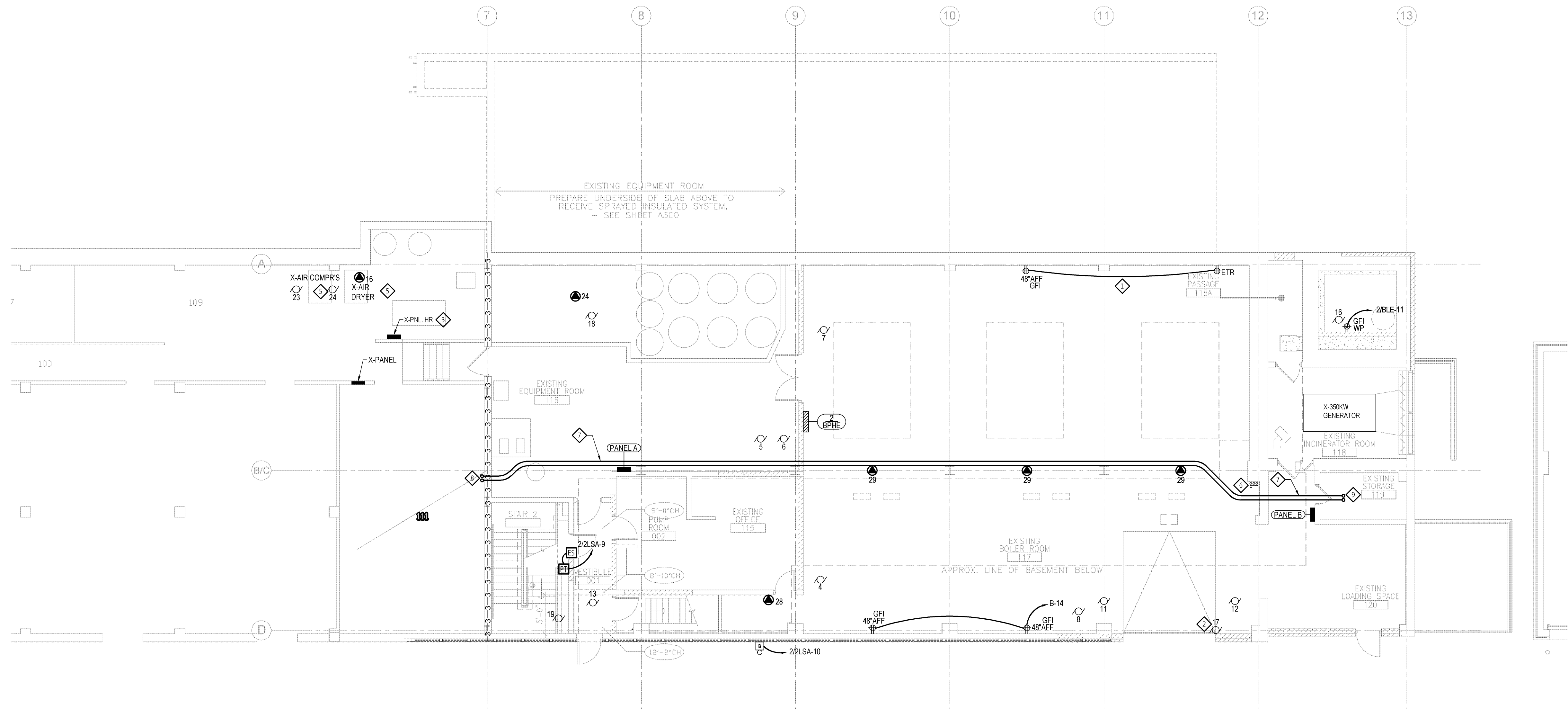
F1 THIRD LEVEL ELECTRICAL EMERGENCY LIGHTING PLAN
1/8" = 1'-0" PLAN NORTH



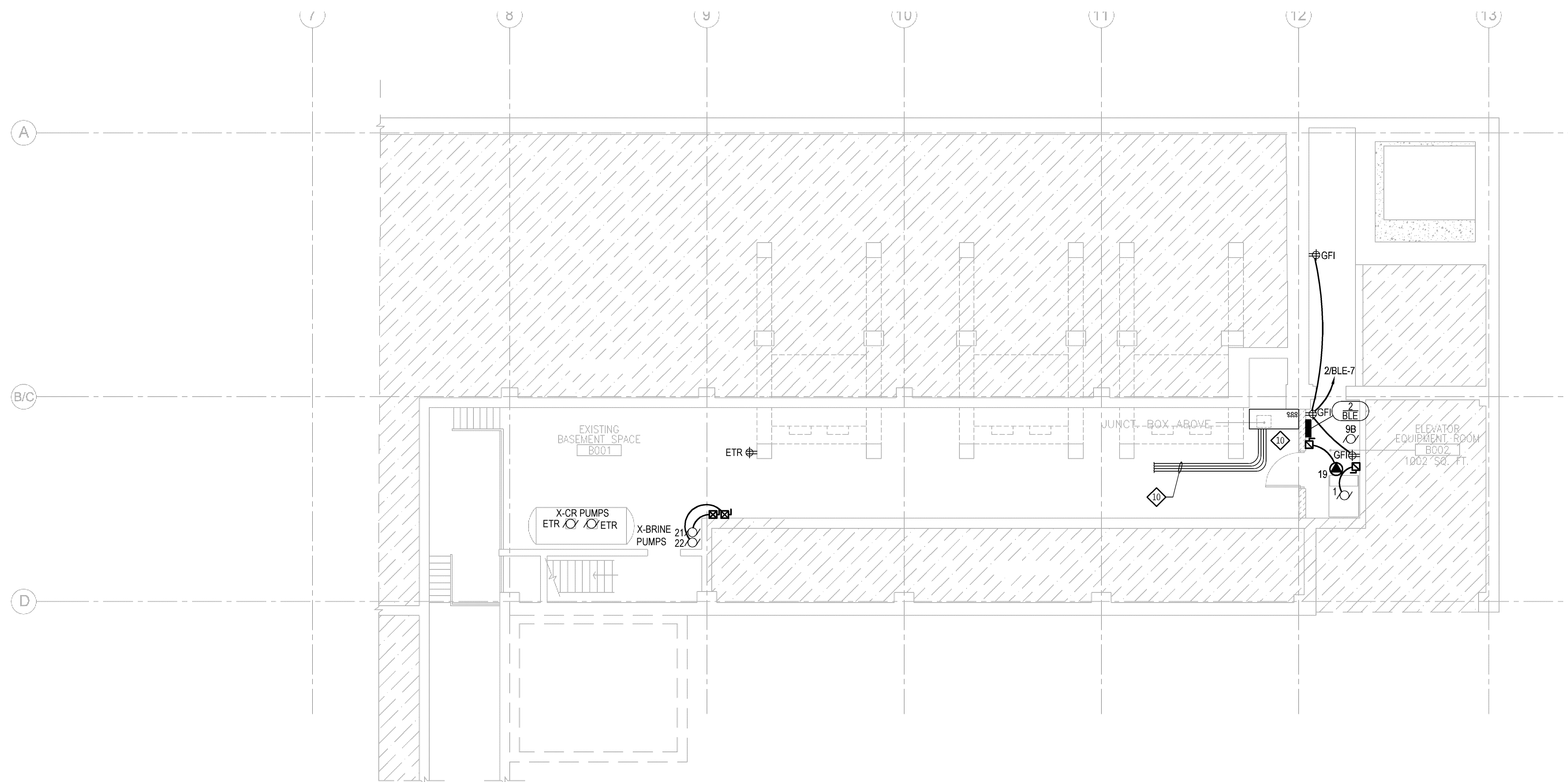
F2 THIRD LEVEL ELECTRICAL EMERGENCY LIGHTING PLAN - ALTERNATE #1
1/8" = 1'-0" PLAN NORTH

Revisions:		CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title		Project Title		Project Number		Office of Construction and Facilities Management	
				13100 watertown plank road suite 200 elm grove, wi 53122 p 262.641.0746 f 262.641.0584		Third Level Electrical Emergency Lighting Plan		William S. Middleton VA Hospital Renovate Building 2		607-12-115		Department of Veterans Affairs	
				magel architects		Approved: Project Director		Location Madison, WI		Building Number 2			
				IBC ENGINEERING SERVICES INC.				Date MARCH 28, 2013		Checked DS		Drawn JAL	
										Drawing Number EL-203EM		Dwg. * of	

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



F1 GROUND LEVEL ELECTRICAL POWER PLAN
1/8" = 1'-0"



F2 BASEMENT LEVEL ELECTRICAL POWER PLAN
1/8" = 1'-0"

SHEET NOTES

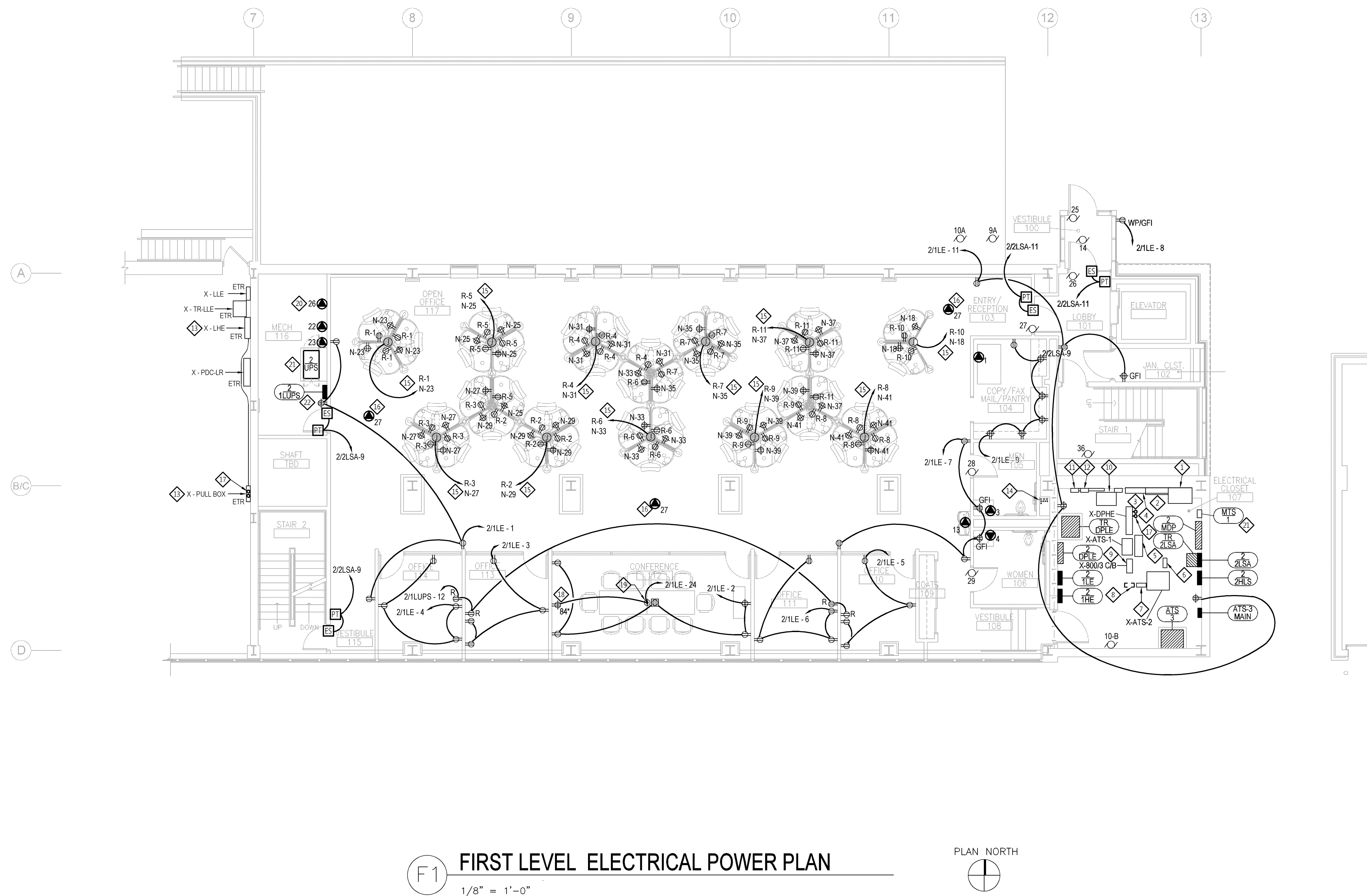
- EXISTING J-BOXES AND CONDUITS ON GROUND FLOOR CEILING TO BE RELOCATED/ SUSPENDED BELOW NEW SPRAY-ON INSULATION. PROVIDE SUSPENSION RODS AS REQUIRED.
- ALL MECHANICAL, PLUMBING, OR ELECTRICAL WORK THAT REQUIRES SERVICE DISRUPTIONS IN BUILDING 2 THAT WILL IMPACT THE LAUNDRY OPERATIONS SHALL BE SCHEDULED BETWEEN NOON ON FRIDAYS TO 7:00 AM ON MONDAY (WEEKEND WORK ONLY). COORDINATE WORK BETWEEN TRADES SO THAT WORK OF MULTIPLE TRADES CAN BE PERFORMED DURING THE SAME SHUT-DOWN PERIOD. ALL WORK REQUIRING SERVICE DISRUPTION SHALL BE COORDINATED WITH THE VA. A MINIMUM OF 2 WEEKS' NOTICE SHALL BE GIVEN FOR ANY AND ALL SERVICE DISRUPTIONS.

KEY NOTES

- EXTEND EXISTING RECEPTACLE BRANCH CIRCUIT TO NEW RECEPTACLE.
- RECONNECT NEW OVERHEAD DOOR MOTOR TO EXISTING OVERHEAD DOOR MOTOR CIRCUIT. REROUTE BRANCH CIRCUIT AS NEEDED.
- PROVIDE NEW 200A FEEDER TO EXISTING PANEL "HR".
- NOT USED.
- RELOCATED AIR COMPRESSORS AND AIR DRYER. PROVIDE NEW CIRCUITS FROM PANEL 2/BPHE.
- EXISTING CONDUIT RISERS TO REMAIN.
- PROVIDE NEW 400A FEEDER FROM PANEL DPHE TO EXISTING PANEL PDC-LHE. COORDINATE INSTALLATION WITH DEMOLITION OF EXISTING MEZZANINE AND REMOVAL OF EXISTING FEEDER SO THAT DOWNTIME OF PANEL PDC-LHE IS MINIMAL. INSTALL NEW FEEDER TO EXISTING BUILDING COLUMNS SO THAT IT WILL BE LOCATED BELOW THE NEW FIRST LEVEL FLOOR.
- EXTEND NEW 400A FEEDER FOR PANEL PDC-LHE UP TO EXISTING PULL BOX LOCATED IN LAUNDRY SOILED LINEN ROOM ABOVE.
- EXTEND NEW 400A FEEDER FOR PANEL PDC-LHE UP TO EXISTING PANEL DPHE IN ELECTRICAL ROOM ABOVE.
- EXISTING PULL BOX AND CONDUITS ROUTED THROUGH BASEMENT TO REMAIN.

100% CONSTRUCTION DOCUMENTS

CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title	Project Title	Project Number	Office of Construction and Facilities Management	
				Basement and Ground Level Electrical Power Plans	William S. Middleton VA Hospital Renovate Building 2	607-12-115		
Revisions:		13100 watertown plank road suite 200 elm grove, wi 53122 p 262.641.0746 f 262.641.0584		Approved: Project Director	Location Madison, WI	Building Number 2	Dwg. * of	
Date		magel architects			Date MARCH 28, 2013	Checked DS		
		IBC ENGINEERING SERVICES INC.			Drawn KEB	Drawing Number EP-200	Department of Veterans Affairs	



SHEET NOTES

1. WORKSTATION CIRCUITING: "N" IS DESIGNATING THE CIRCUIT TO BE CIRCLED TO PANEL 2ZLUPS. "N" IS DESIGNATING THE CIRCUIT TO BE CONNECTED TO PANEL 1ZLUPLE.
2. "P" DESIGNATED RECEPTACLES (CIRCLED FROM UPS PANEL 1ZLUPLE) HAVE RED PINS AND RED WALL PLATE (ALTERNATE #2 - RECEPTACLES TO BE EVERY).
3. ALL MECHANICAL PLUMBING OR ELECTRICAL WORK THAT REQUIRES SERVICE DISRUPTIONS IN BUILDING 2 THAT WILL IMPACT THE LAUNDRY OPERATIONS SHALL BE SCHEDULED BETWEEN NOON MONDAYS TO 7:00 AM MONDAY (WEEKEND WORK ONLY). COORDINATE WORK FROM TRADES SO THAT WORK OF MULTIPLE TRADES ARE BEING PERFORMED AT THE SAME SHUT-DOWN PERIOD. ALL WORK REQUIRING SERVICE DISRUPTION SHALL BE COORDINATED WITH THE LAUNDRY OPERATIONS. SERVICE SHALL BE GIVEN FOR ANY AND ALL SERVICE DISRUPTIONS.

KEY NOTES

- ⬢ EXISTING 480V MAIN SWITCH TO REMAIN.
- ⬢ EXISTING EMERGENCY TAP BOX TO REMAIN
- ⬢ EXISTING EQUIPMENT FEEDER TAP BOX REMAIN.
- ⬢ EXISTING WIRING TROUGH TO REMAIN.
- ⬢ EXISTING 32 x 12 PULL BOX TO REMAIN.
- ⬢ EXISTING BOOSTER PUMP LOAD DISCONNECT TO REMAIN.
- ⬢ EXISTING TRANSFER SWITCH 2 LINE DISCONNECT (FEED FROM EMERGENCY TAP BOX) TO REMAIN.
- ⬢ EXISTING TRANSFER SWITCH 2 LINE DISCONNECT (FEED FROM MAIN SWITCH) TO BE REMOVED.
- ⬢ EXISTING TRANSFER SWITCH 1 LINE DISCONNECT TO REMAIN.
- ⬢ EXISTING 75KVA TRANSFORMER TO REMAIN.
- ⬢ EXISTING DISCONNECT SWITCH FOR PANEL "A" TO REMAIN.
- ⬢ EXISTING DISCONNECT SWITCH FOR PANEL "B" TO REMAIN.
- ⬢ PROVIDE NEW 400A FEEDER FROM PANEL DPH-2 TO EXISTING PANEL "DPC-LHF" IN LAUNDRY. INTERCEPT EXISTING FEEDER AT PULL BOX LOCATED ON EAST WALL OF SOILED LINEN AREA RM. 204.
- ⬢ EXISTING CONDUIT RISERS TO REMAIN.
- ⬢ POWER FEED FOR FURNITURE TO COME FROM CEILING
- ⬢ PROVIDE TWO TO THREE TRANSFORMERS FOR VAV BOX'S. COORDINATE WITH MECHANICAL CONTRACTOR FOR NUMBER REQUIRED, EXACT LOCATION, AND LOAD REQUIREMENTS.
- ⬢ NEW 400A FEEDER FOR EXISTING PANEL DPC-LHF. ROUTE DOWN TO GROUND FLOOR LEVEL CEILING.
- ⬢ MOUNT RECEPTACLE AT 84" AFF. BEHIND WALL MONITOR OR SMARTBOARD. VERIFY EXACT LOCATION WITH OWNER AND ARCHITECT.
- ⬢ FLUSH CEILING OUTLET FOR PROJECTOR. VERIFY EXACT LOCATION WITH OWNER AND ARCHITECT.
- ⬢ CARD ACCESS SYSTEM CONTROL PANEL. VERIFY EXACT LOCATION WITH OWNER.
- ⬢ ALTERNATE #2 - DELETE UPS AND MTS-1
- ⬢ ALTERNATE #2 - CHANGE PANEL DESIGNATION TO 2/L1-E-1 INCLUDING ALL ASSOCIATED BRANCH CIRCUIT NUMBERS.

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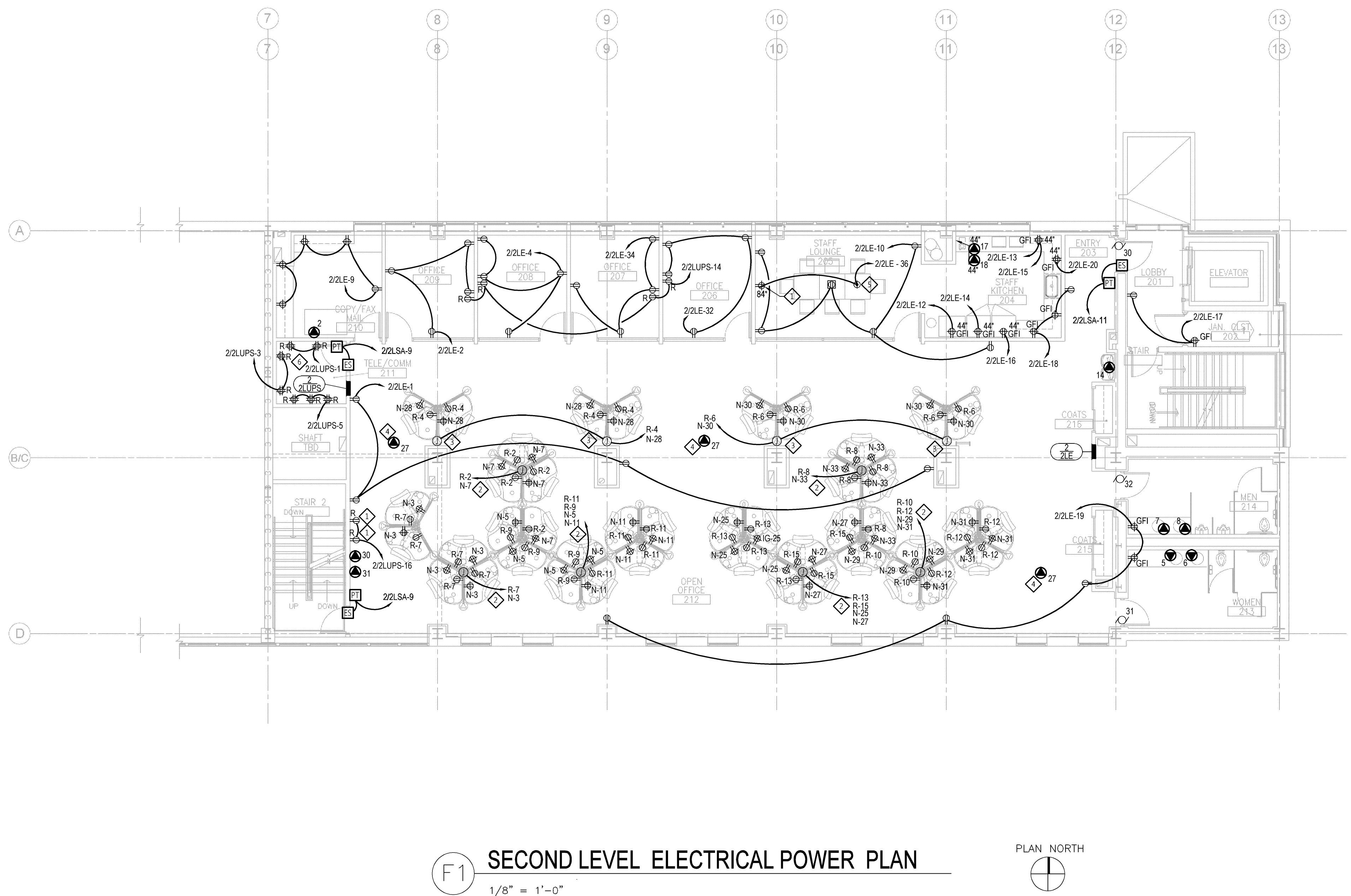
three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

SHEET NOTES

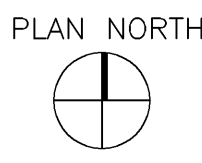
1. WORKSTATION CIRCUITS: "R" IS DESIGNATING THE CIRCUIT TO BE CIRCUITED TO PANEL 2/2LUPS. "N" IS DESIGNATING THE CIRCUIT TO BE CONNECTED TO PANEL 2/2LE.
2. "R" IS DESIGNATED RECEPTACLES (CIRCUITED FROM UPS PANEL) TO HAVE RED FACE AND RED WALL PLATE. (ALTERNATE #2: RECEPTACLES TO BE IVORY.)

KEY NOTES

- ◇ MOUNT RECEPTACLE AT 84" AFF. BEHIND WALL MONITOR OR SMARTBOARD. VERIFY EXACT LOCATION WITH OWNER AND ARCHITECT.
- ◇ POWER FEED FOR FURNITURE TO COME FROM CEILING.
- ◇ POWER FEED TO FURNITURE TO COME DOWN FROM COLUMN.
- ◇ PROVIDE TWO TO THREE TRANSFORMERS FOR VAV BOX'S. COORDINATE WITH MECHANICAL CONTRACTOR FOR NUMBER REQUIRED, EXACT LOCATION, AND LOAD REQUIREMENTS.
- ◇ FLUSH CEILING OUTLET FOR PROJECTOR.
- ◇ ALTERNATE #2 - CHANGE PANEL DESIGNATION TO 2/2LE-1, INCLUDING ALL ASSOCIATED BRANCH CIRCUIT NUMBERS.



F1 SECOND LEVEL ELECTRICAL POWER PLAN
1/8" = 1'-0"



100% CONSTRUCTION DOCUMENTS

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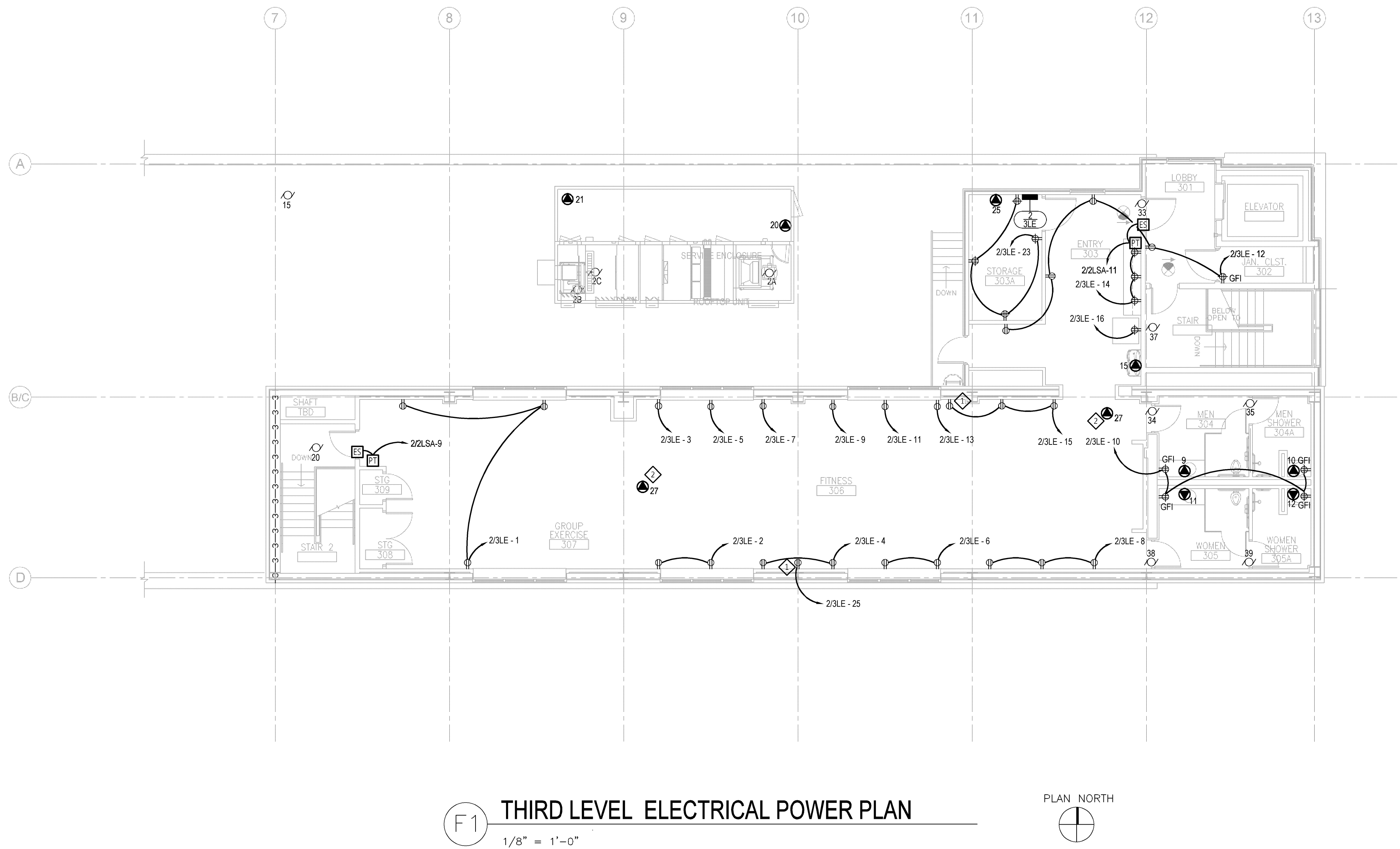
three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

SHEET NOTES

- ALTERNATE BID #1: DELETE ELECTRICAL DEVICES AND BRANCH CIRCUIT WIRING IN ROOMS 304, 304A, 305, 305A, 306, 307, 308, AND 309. PROVIDE RACEWAY AND OUTLET BOX ROUGH-INS ONLY, WHERE RACEWAY AND BOXES WILL BE CONCEALED IN WALL CONSTRUCTION. POWER TO ELECTRIC DOOR STROKE AT EXIT DOOR TO STAIR 2 TO REMAIN.

KEY NOTES

- MOUNT RECEPTACLE AT 84" AFF, BEHIND MONITOR. VERIFY EXACT LOCATION WITH OWNER AND ARCHITECT.
- PROVIDE TWO TO THREE TRANSFORMERS FOR VAV BOXES. COORDINATE WITH MECHANICAL CONTRACTOR FOR NUMBER REQUIRED, EXACT LOCATION, AND LOAD REQUIREMENTS.



F1 THIRD LEVEL ELECTRICAL POWER PLAN
1/8" = 1'-0"



100% CONSTRUCTION DOCUMENTS

<div>Revisions:</div> <div>Date</div>		CONSULTANTS:		ARCHITECT/ENGINEERS:	<div>13100 watertown plank road suite 200 elm grove, wi 53122 p 262.641.0746 f 262.641.0584</div> 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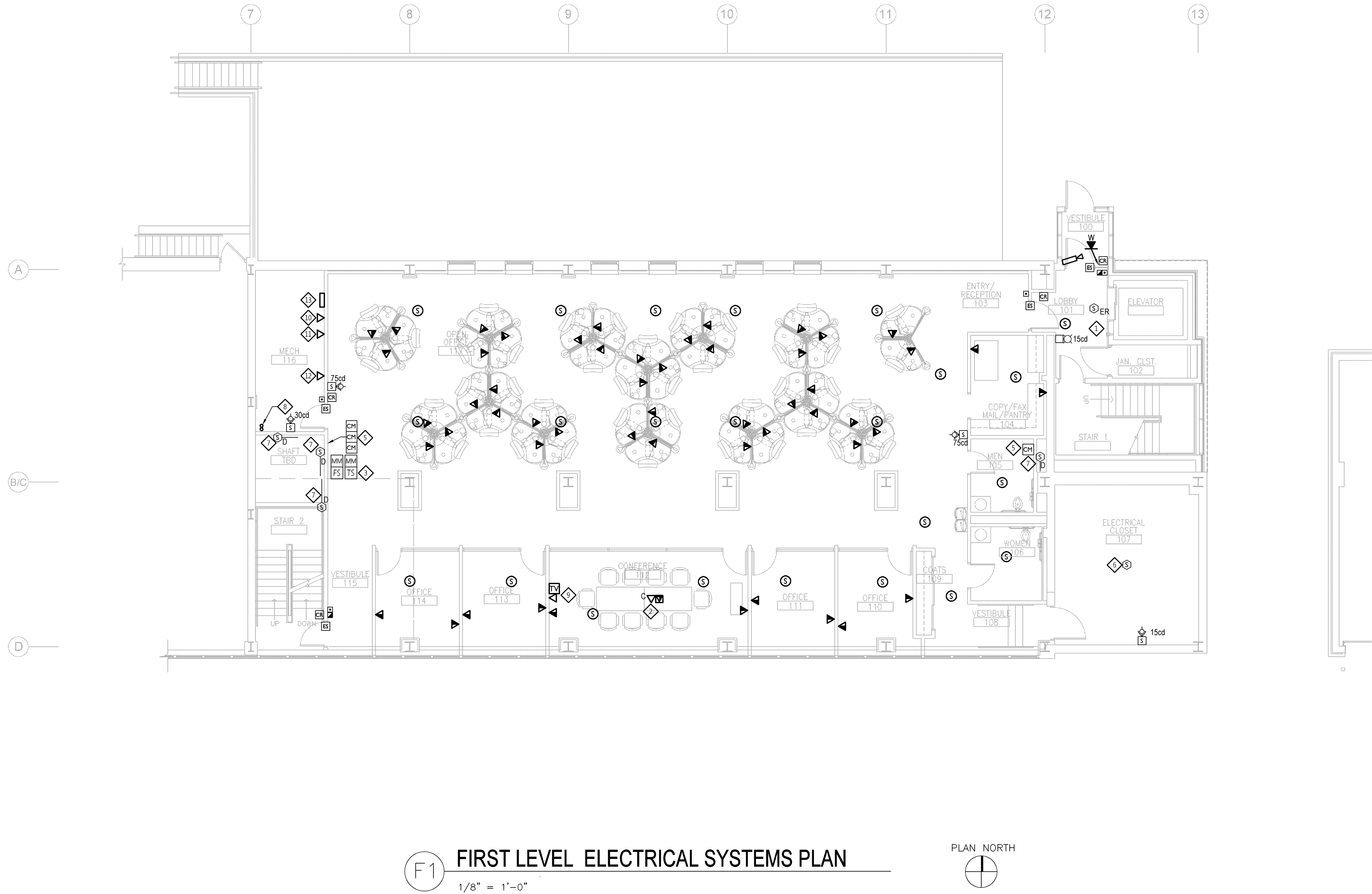
INSTALLATION OF CHWIKO PIPING PART 1: PRE-INSTALLATION
AND RE-INSTALL OF EXISTING TANK RACKS AND SHELVING.

1. ALL MECHANICAL, PLUMBING, OR ELECTRICAL WORK THAT REQUIRES SERVICE DISRUPTIONS IN BUILDING 2 THAT WILL IMPACT THE LAUNDRY OPERATIONS SHALL BE SCHEDULED BETWEEN NOON ON FRIDAYS TO 7:00 AM ON MONDAY (WEEKEND WORK ONLY). COORDINATE WORK BETWEEN TRADES SO THAT WORK OF MULTIPLE TRADES CAN BE PERFORMED DURING THE SAME SHUT-DOWN PERIOD. ALL WORK REQUIRING SERVICE DISRUPTION SHALL BE COORDINATED WITH THE VA. A MINIMUM OF 2 WEEKS' NOTICE SHALL BE GIVEN FOR ANY AND ALL SERVICE DISRUPTIONS.

- ◆ C125- EQUIPMENT, TELEPHONE SWITCH ROOM ABOVE TERMINATE (U) - 2009P, CARRIER TELEPHONE CABLE (U) 20 STRAND MULTIMODE FIBER OPTIC CABLE (U) 20 STRAND SINGLE MODE FIBER OPTIC CABLE, AND (U) CATV COAX DISTRIBUTION CABLE FROM BUILDING 2 TO OWNER'S EQUIPMENT ROOM. MINIMUM BEND RADIUS: COORDINATE ALL TERMINATION REQUIREMENTS WITH OWNER.
- ◆ ROUTE 2009P TELECOMMUNICATION CABLE, FIBER OPTIC CABLES AND CATV CABLES THROUGH SUSPENDED SPACES OF HOSPITAL C-WING AND G-WING. CARRYING CABLES FROM HOSPITAL C-WING AND G-WING TO BUILDING 2. MAINTAINING OF NEW MECHANICAL PIPING, WHILE ROUTING AND KEEPING CLEARANCES FROM PIPING AND EQUIPMENT. VERIFY CABLE INSTALLATION AND ROUTING WITH OWNER.
- ◆ PROVIDE (B) 3" CONDUIT UPSH UP INTO C-WING ROOM C125 ABOVE FOR TELEPHONE, FIBER OPTIC, AND CATV CABLES.
- ◆ PROVIDE 36" X 36" X 18" NEMA 4X STAINLESS STEEL PULL BOX ON EXTERIOR WALL FOR TERMINATION OF OPTIC FIBER CABLE. SEE SHEET 1000-1 FOR DETAILS OF UNDERGROUND DUCT BANK TO BUILDING 2. BUILDING (B) 4" C. THRU WALL FOR CABLE ENTRANCE INTO BUILDING 2. EXTENDING CONDUITS THRU EXISTING WALL OPENINGS.
- ◆ PATCH WALLS AND CEILING TO MATCH EXISTING (WITH MECH. CONTR.). PATCH WALL OPENING AFTER INSTALLATION OF CONDUITS.
- ◆ INSTALL CABLES ABOVE EXISTING DUCTS AND PIPING LOCATED ABOVE CORRIDOR CEILING.
- ◆ REMOVE/RELOCATE EXISTING LIGHT FIXTURES AS NECESSARY TO ACCOMMODATE NEW MECHANICAL PIPING. SEE SHEET 1000-1.
- ◆ INSTALLATION OF CABLES TO BE COORDINATED WITH INSTALLATION OF C-WING PIPING AND THE REMOVAL AND RE-INSTALL OF EXISTING TANR RACKS AND SHELVING.

100% CONSTRUCTION DOCUMENTS

one eighth inch = one foot
one quarter inch = one foot
three eighths inch = one foot
one half inch = one foot
three quarters inch = one foot
one inch = one foot
one and one half inches = one foot
three inches = one foot
6"



F1 FIRST LEVEL ELECTRICAL SYSTEMS PLAN
1/8" = 1'-0"

SHEET NOTES

1. PROVIDE TWO DATA JACKS AND TWO VOICE JACKS IN EACH TEL/DATA OUTLET AT THE WORKSTATIONS.
2. PROVIDE ONE DATA JACK, ONE VOICE JACK, AND TWO BLANK INSERTS IN EACH TEL/DATA OUTLET IN THE OFFICES.
3. EXISTING FIBER LINES TO BUILDING #2 ARE TO BE REMOVED AFTER NEW FIBER LINES ARE INSTALLED.
4. ALL MECHANICAL, PLUMBING, OR ELECTRICAL WORK THAT REQUIRES SERVICE DISRUPTIONS IN BUILDING 2 THAT WILL IMPACT THE LAUNDRY OPERATIONS SHALL BE SCHEDULED BETWEEN NOON ON FRIDAYS TO 7:00 AM ON MONDAY (WEEKEND WORK ONLY). COORDINATE WORK BETWEEN TRADES SO THAT WORK OF MULTIPLE TRADES CAN BE PERFORMED DURING THE SAME SHUT-DOWN PERIOD. ALL WORK REQUIRING SERVICE DISRUPTION SHALL BE COORDINATED WITH THE VA. A MINIMUM OF 2 WEEKS' NOTICE SHALL BE GIVEN FOR ANY AND ALL SERVICE DISRUPTIONS.

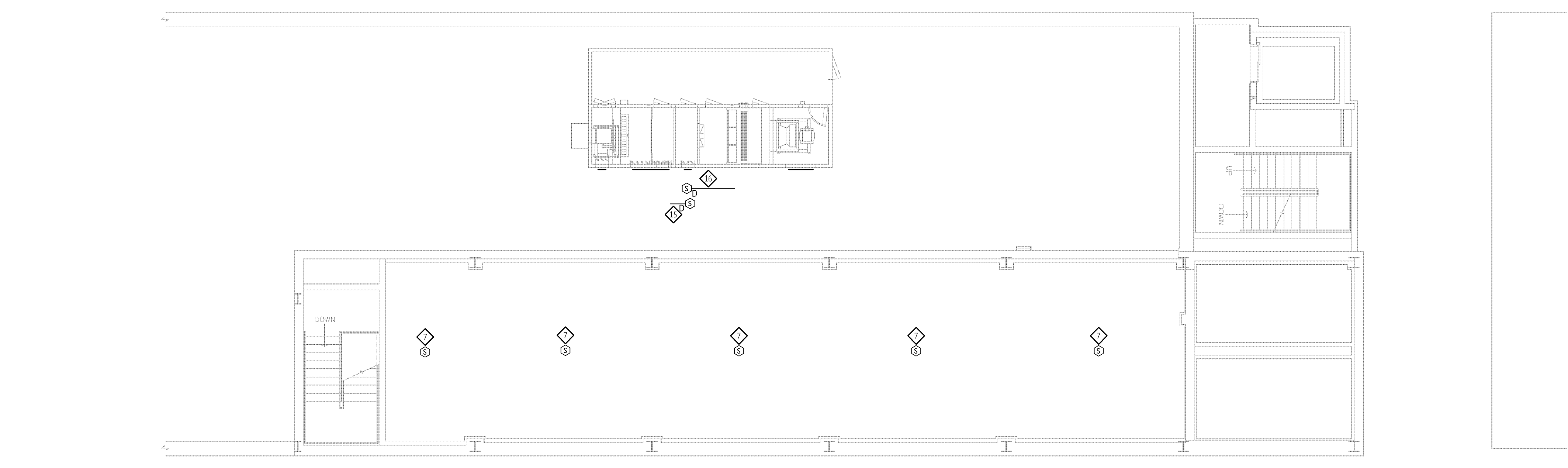
KEY NOTES

- ◇ SMOKE DETECTOR FOR ELEVATOR RECALL CONTROL. LOCATE WITH IN 15FT. OF ELEVATOR DOOR.
- ◇ FLUSH CEILING DATA OUTLET FOR PROJECTOR.
- ◇ COORDINATE QUANTITY AND LOCATIONS OF SPRINKLER SYSTEM FLOW SWITCHES AND TAMPER SWITCHES WITH THE FIRE PROTECTION SYSTEM CONTRACTOR.
- ◇ NOT USED.
- ◇ PROVIDE A CONTROL MODULE FOR EACH FIRE/SMOKE DAMPER.
- ◇ SMOKE DETECTOR LOCATED IN INTERSTITIAL SPACE ABOVE ELECTRICAL CLOSET ROOM 107.
- ◇ DUCT MOUNTED SMOKE DETECTOR. PROVIDE FIRE RATED ACCESS PANEL.
- ◇ (2)-4" C. UP TO TEL/COMM. RM. 211 WITH TELEPHONE, FIBER OPTIC CABLES, AND CATV CABLES.
- ◇ MOUNT DATA AND TV OUTLETS AT 84" AFF. BEHIND MONITOR. VERIFY EXACT LOCATION WITH OWNER AND ARCHITECT.
- ◇ DATA OUTLET FOR BACNET CONTROL PANEL.
- ◇ DATA OUTLET FOR TRIDIUM JACE CONTROL PANEL.
- ◇ DATA OUTLET FOR UPS STATUS/ALARM MONITORING.
- ◇ CARD ACCESS SYSTEM EXTENSION PANEL. VERIFY LOCATION WITH OWNER.

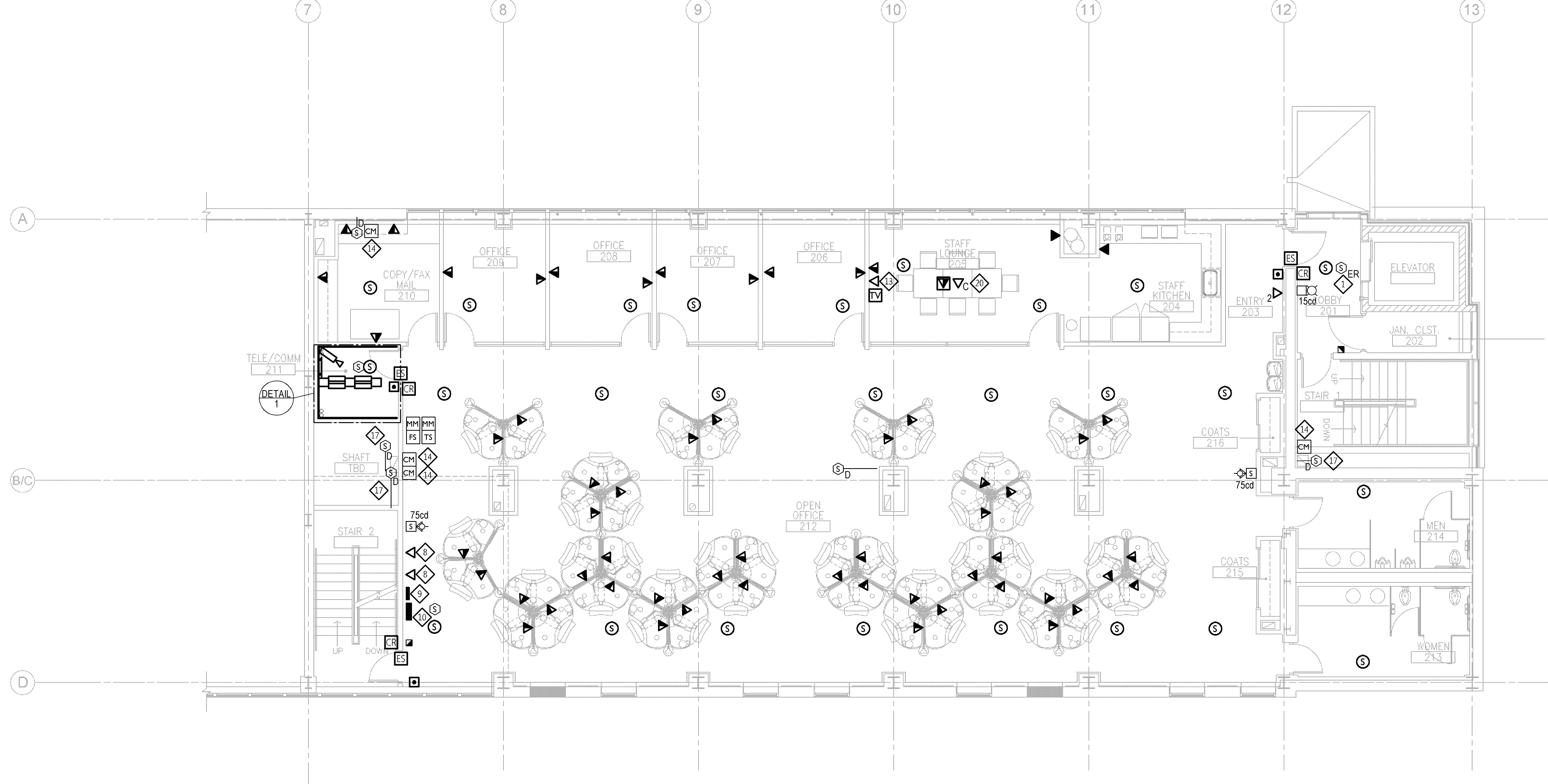
100% CONSTRUCTION DOCUMENTS

		CONSULTANTS:		ARCHITECT/ENGINEERS:	Drawing Title	Project Title	Project Number	Office of Construction and Facilities Management
						First Level Electrical Systems Plan	William S. Middleton VA Hospital Renovate Building 2	
							Building Number	Dwg. * of
							2	
					Approved: Project Director	Location	Drawing Number	ES-201
						Madison, WI		
						Date	Checked	Drawn
						MARCH 29, 2013	DS	KEB
Revisions:								
	</							

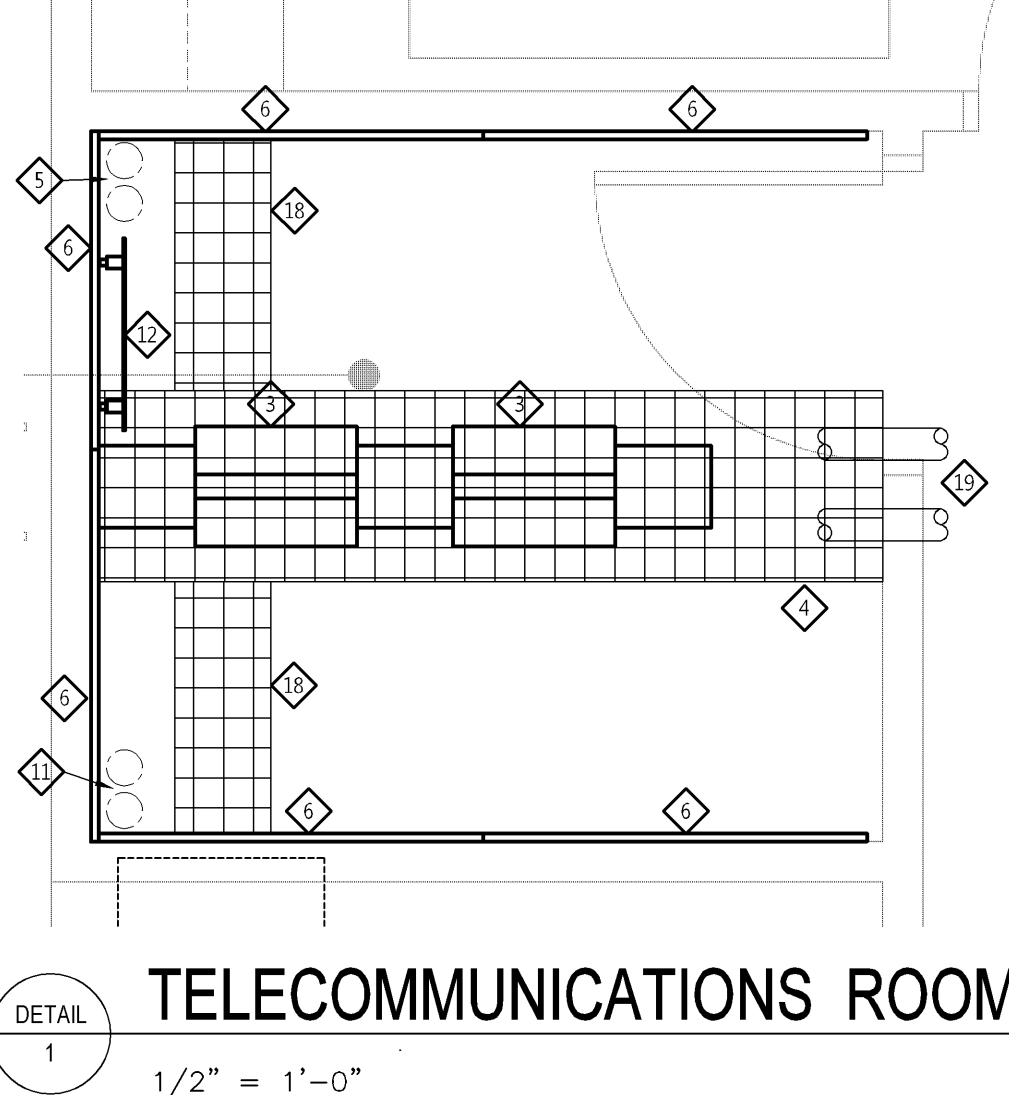
three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



F2 SECOND LEVEL ELECTRICAL SYSTEMS PLAN - UPPER DUCT LEVEL
1/8" = 1'-0"



F1 SECOND LEVEL ELECTRICAL SYSTEMS PLAN
1/8" = 1'-0"



DETAIL 1 TELECOMMUNICATIONS ROOM
1/2" = 1'-0"

KEY NOTES

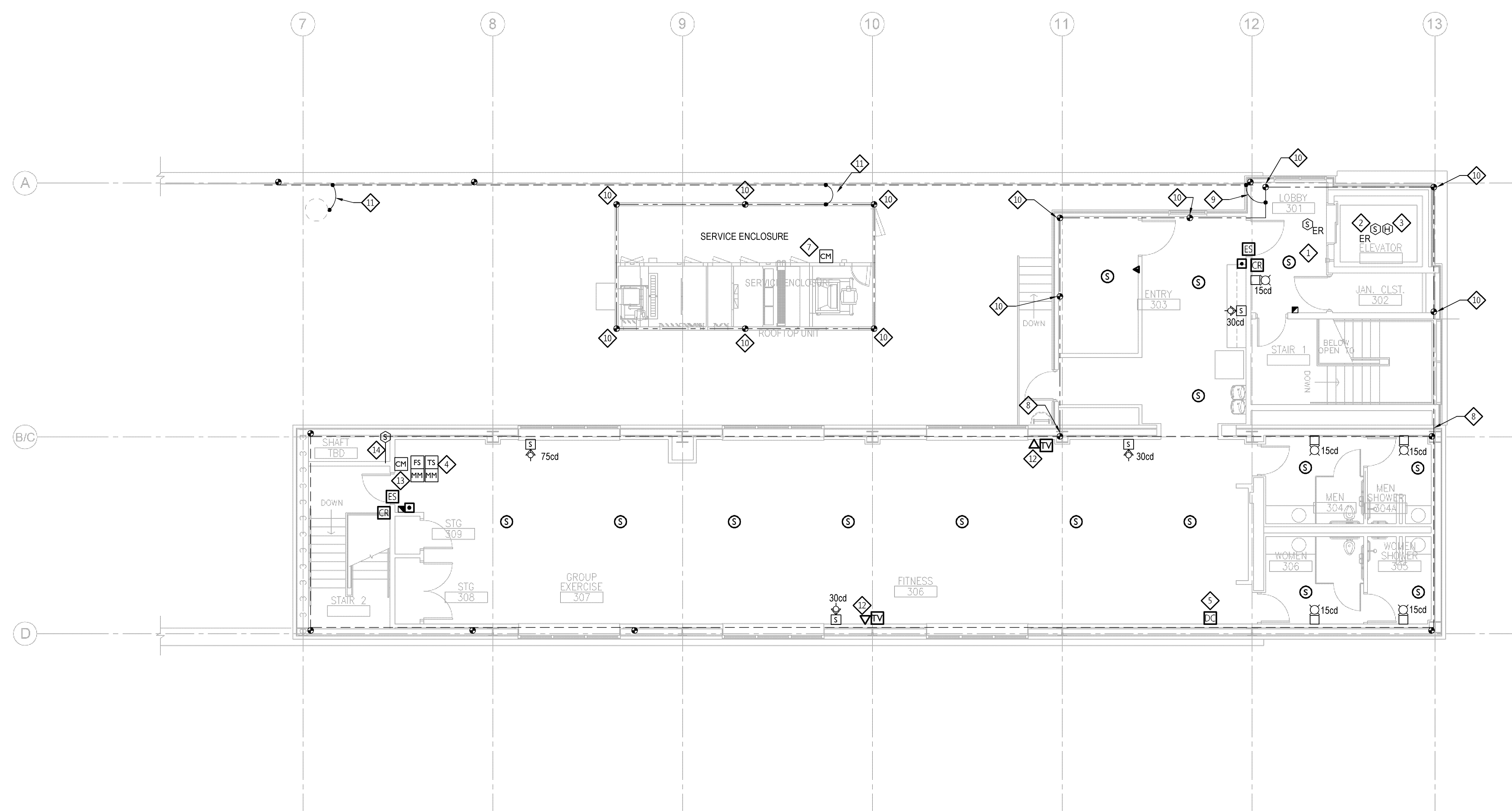
1. PROVIDE TWO DATA JACKS AND TWO VOICE JACKS IN EACH TEL/DATA OUTLET AT THE WORKSTATIONS.
2. PROVIDE ONE DATA JACK, ONE VOICE JACK, AND TWO BLANK INSERTS IN EACH TEL/DATA OUTLET IN THE OFFICES.
3. ALL MECHANICAL PLUMBING, OR ELECTRICAL WORK THAT REQUIRES SERVICE DISRUPTIONS IN BUILDING 2 THAT WILL IMPACT THE LAUNDRY OPERATIONS SHALL BE SCHEDULED BETWEEN NOON ON FRIDAYS TO 7:00 AM ON MONDAY (WEEKEND WORK ONLY). COORDINATE WORK BETWEEN TRADES SO THAT WORK OF MULTIPLE TRADES CAN BE PERFORMED DURING THE SAME SHUT-DOWN PERIOD. ALL WORK REQUIRING SERVICE DISRUPTION SHALL BE COORDINATED WITH THE VA. A MINIMUM OF 2 WEEKS NOTICE SHALL BE GIVEN FOR ANY AND ALL SERVICE DISRUPTIONS.

KEY NOTES

- ◆ SMOKE DETECTOR FOR ELEVATOR RECALL CONTROL. LOCATE WITHIN 15FT. OF ELEVATOR DOOR.
- ◆ COORDINATE QUANTITY AND LOCATIONS OF SPRINKLER SYSTEM FLOW SWITCHES AND TAMPER SWITCHES WITH THE FIRE PROTECTION SYSTEM CONTRACTOR.
- ◆ 19" W x 84" H DATA RACK WITH 6" VERTICAL CABLE MANAGEMENT SYSTEM WITH DUAL SIDED HINGED METAL COVER ON EACH SIDE.
- ◆ 24" WIDE BASKET STYLE CABLE TRAY RUNNING PERPENDICULAR TO DATA RACKS SUSPENDED 7'-6" AFF.
- ◆ (2) - 3" C. STUBBED UP INTO CEILING SPACE AND (2) - 3" C. STUBBED DOWN INTO CEILING SPACE ON FIRST FLOOR FOR HORIZONTAL CABLE ROUTING FROM TEL/DATA STATION OUTLETS TO DATA RACKS.
- ◆ 4" X 8" X 3/4" PLYWOOD ON SIDE WALLS AND 4" X 6" X 3/4" PLYWOOD ON WEST WALL FOR TELECOM SUPPORT. PAINT PLYWOOD 2 COATS OF FIRE PROOFING GRAY PAINT.
- ◆ SMOKE DETECTOR LOCATED IN INTERSTITIAL SPACE.
- ◆ MOUNT AT 84" AFF. BEHIND MONITOR. VERIFY WITH OWNER AND ARCHITECT FOR EXACT LOCATION.
- ◆ MEDICAL GAS MASTER ALARM PANEL. ELECTRICAL CONTRACTOR SHALL PROVIDE ALARM PANEL TO MATCH EXISTING VA MED. GAS SUPPLIER PROVIDER.
- ◆ SIMPLEX 4100 FIRE ALARM CONTROL PANEL.
- ◆ (2) - 4" C. FROM TELECOM SERVICE POINT LOCATED IN EXISTING LAUNDRY ROOM 102 FOR 20 PAIR COPPER PHONE CABLE, 20 STRAND MULTI-MODE AND 20 STRAND SINGLE-MODE FIBER OPTIC CABLES (IN INNERDUCT), AND CATV DISTRIBUTION CABLES.
- ◆ TELECOMMUNICATIONS MAIN GROUNDING BUS BAR (TMGB).
- ◆ MOUNT DATA AND TV OUTLETS AT 84" AFF. BEHIND MONITOR. VERIFY EXACT LOCATION WITH OWNER AND ARCHITECT.
- ◆ PROVIDE CONTROL MODULE FOR EACH FIRE/SMOKE DAMPER.
- ◆ SMOKE DUCT DETECTOR LOCATED IN 16X30 EA DUCT FOR AHU-1.
- ◆ SMOKE DUCT DETECTOR LOCATED IN 56X30 RA DUCT FOR AHU-1.
- ◆ DUCT MOUNTED SMOKE DETECTOR. PROVIDE FIRE RATED ACCESS PANEL.
- ◆ 12" WIDE LADDER TRAY RUNNING PERPENDICULAR TO DATA RACKS.
- ◆ PROVIDE (2) 4" C. STUBBED OUT FROM DATA CLOSET TO ABOVE CEILING OF SECOND FLOOR FOR DISTRIBUTION OF CABLEING TO DATA DEVICES.
- ◆ FLUSH CEILING DATA OUTLET FOR PROJECTOR.

100% CONSTRUCTION DOCUMENTS

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F1 THIRD LEVEL ELECTRICAL SYSTEMS PLAN
1/8" = 1'-0"



SHEET NOTES

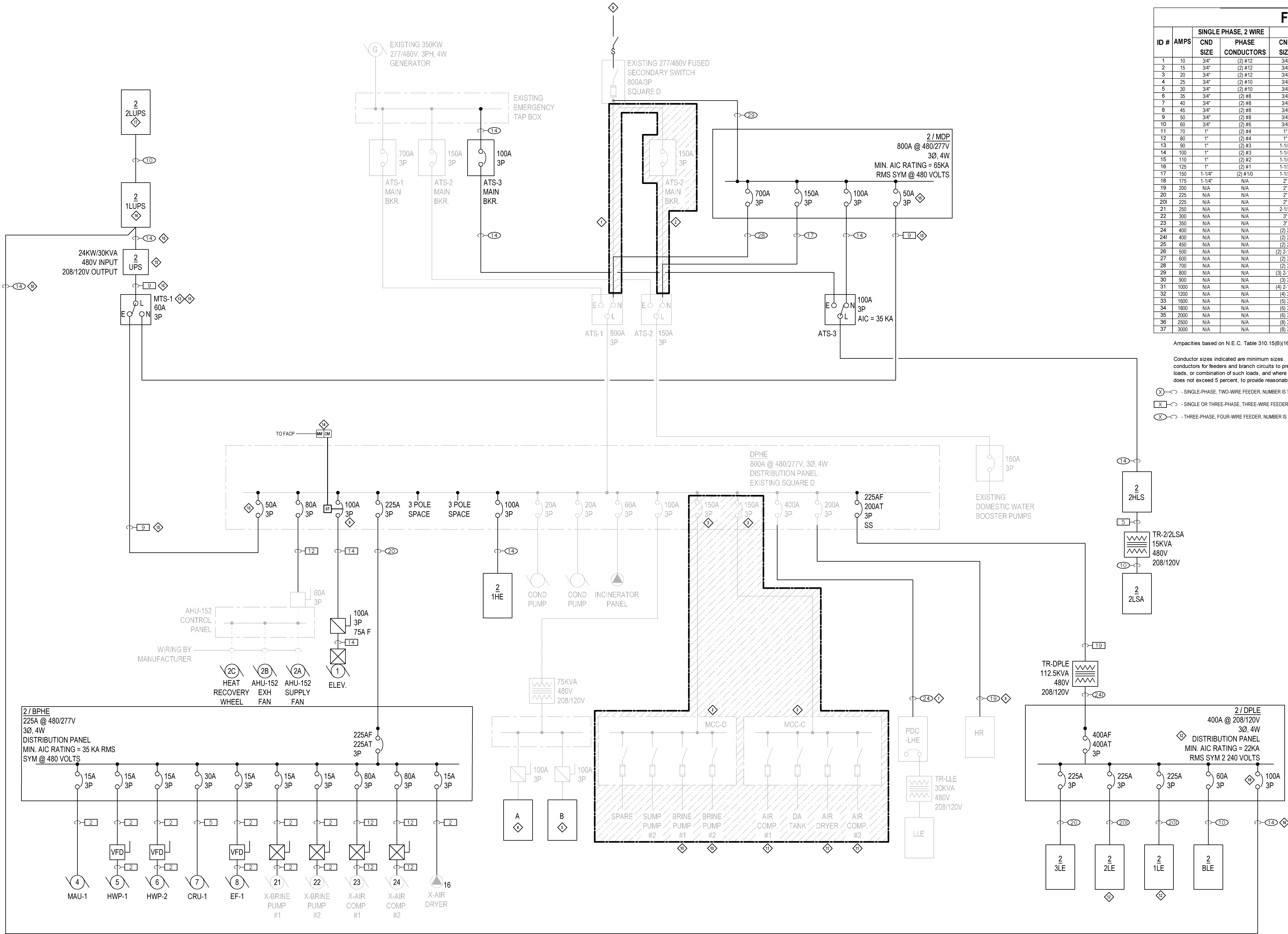
1. ALTERNATE BID #1: DELETE SYSTEMS DEVICES AND ASSOCIATED WIRING IN ROOMS 304, 304A, 305, 305A, 306, 307, 308, AND 309. REMOVE EXISTING RACEWAY, CONDUIT, POWER RACEWAY AND OUTLET BOX ROUGH-INS ONLY. WHERE RACEWAY AND BOXES WILL BE CONCEALED IN WALL CONSTRUCTION, CARD READER/ELECTRIC DOOR STRIKE, AND REQUEST TO EXIT PUSH BUTTON AT EXIT DOOR TO STAIR 2 TO REMAIN. FIRE ALARM PULL STATION AND NOTIFICATION APPLIANCES IN ROOMS 305 AND 307 TO REMAIN. DUCT SMOKE DETECTOR IN RETURN AIR SHAFT AND CONTROL MODULE FOR FIRE/SMOKE DAMPER ACTUATION, AND SPRINKLER SYSTEM FLOW AND TAMPER SWITCHES AND ASSOCIATED MONITORING MODULES TO REMAIN.

KEY NOTES

- ④ SMOKE DETECTOR FOR ELEVATOR RECALL CONTROL. LOCATE LOCATOR IN 15FT. OF ELEVATOR DOOR.
- ④ SMOKE DETECTOR FOR ELEVATOR RECALL CONTROL LOCATE AT TOP OF ELEVATOR SHAFT.
- ④ HEAT DETECTOR FOR ELEVATOR SHUNT TRIP CONTROL LOCATE WITH IN 2FT. OF SPRINKLER HEAD TOP OF ELEVATOR SHAFT.
- ④ COORDINATE QUANTITY AND LOCATIONS OF SPRINKLER SYSTEM FLOW SWITCHES AND TAMPER SWITCHES WITH THE FIRE PROTECTION SYSTEM CONTRACTOR.
- ④ PROVIDE ALARM CANNOT ON AED CABINET DOOR CONNECTED TO BUILDING SECURITY SYSTEM FOR REMOTE MONITORING. VERIFY LOCATION OF AED WITH ARCHITECT.
- ④ NOT USED.
- ④ CONTROL MODULE FOR AUTOMATIC SHUT DOWN OF AIR HANDLING UNIT AHU-152. BASED ON ALARM SIGNAL INITIATED BY ANY OF THE RETURN AIR RISER SMOKE DETECTORS. LOCATE CONTROL MODULE WITHIN 3 FT. OF THE MOTOR STARTER.
- ④ INTERCEPT EXISTING LIGHTNING PROTECTION SYSTEM AND EXTEND MAIN LIGHTNING CONDUCTOR AROUND PERIMETER OF NEW ROOF.
- ④ PROVIDE NEW LIGHTNING PROTECTION SYSTEM DOWN CONDUCTOR TO INTERCONNECT MAIN CABLES OF UPPER AND LOWER ROOFS.
- ④ NEW LIGHTNING PROTECTION SYSTEM AIR TERMINAL.
- ④ CONNECT HVAC EQUIPMENT TO LIGHTNING PROTECTION SYSTEM.
- ④ MOUNT DATA AND TV OUTLETS AT 84" AFF. BEHIND MONITOR. VERIFY EXACT LOCATION WITH OWNER AND ARCHITECT.
- ④ PROVIDE CONTROL MODULE FOR FIRE/SMOKE DAMPER
- ④ DUCT MOUNTED SMOKE DETECTOR. PROVIDE FIRE RATE ACCESS PANEL.

[illegible]

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighths inch = one foot
one sixteenths inch = one foot



FEEDER SCHEDULE									
ID #	AMPS	SINGLE PHASE, 2 WIRE		1 OR 3 PHASE, 3 WIRE		THREE PHASE, 4WIRE		ALL	
		CND SIZE	PHASE CONDUCTORS	CND SIZE	PHASE CONDUCTORS	CND SIZE	PHASE CONDUCTORS	EQUIP. GRD. CONDUCTOR	
1	10	3/4"	(2) #12	3/4"	(3) #12	3/4"	4#12	#12	
2	15	3/4"	(2) #12	3/4"	(3) #12	3/4"	4#12	#12	
3	20	3/4"	(2) #12	3/4"	(3) #12	3/4"	4#12	#12	
4	25	3/4"	(2) #10	3/4"	(3) #10	3/4"	4#10	#10	
5	30	3/4"	(2) #10	3/4"	(3) #10	3/4"	4#10	#10	
6	35	3/4"	(2) #8	3/4"	(3) #8	3/4"	4#8	#8	
7	40	3/4"	(2) #8	3/4"	(3) #8	3/4"	4#8	#8	
8	45	3/4"	(2) #8	3/4"	(3) #8	3/4"	4#8	#8	
9	50	3/4"	(2) #8	3/4"	(3) #8	3/4"	4#8	#8	
10	60	3/4"	(2) #6	3/4"	(3) #6	1"	4#6	#6	
11	70	1"	(2) #4	1"	(3) #4	1-1/4"	4#4	#4	
12	80	1"	(2) #4	1"	(3) #4	1-1/4"	4#4	#4	
13	90	1"	(2) #3	1-1/4"	(3) #3	1-1/4"	4#3	#3	
14	100	1"	(2) #3	1-1/4"	(3) #3	1-1/4"	4#3	#3	
15	110	1"	(2) #2	1-1/4"	(3) #2	1-1/2"	4#2	#2	
16	125	1"	(2) #1	1-1/2"	(3) #1	1-1/2"	4#1	#1	
17	150	1-1/4"	(2) #10	1-1/2"	(3) #10	2"	4#10	#10	
18	175	1-1/4"	N/A	2"	(3) #20	2"	4#20	#20	
19	200	N/A	N/A	2"	(3) #30	2"	4#30	#30	
20	225	N/A	N/A	2"	(3) #40	2-1/2"	4#40	#40	
20I	225	N/A	N/A	2"	(3) #40	2-1/2"	4 #40	(2) #4*	
21	250	N/A	N/A	2-1/2"	(4) 250 kcmil	3"	(4) 250 kcmil	#4	
22	300	N/A	N/A	3"	(4) 350 kcmil	3"	(4) 350 kcmil	#3	
23	350	N/A	N/A	3"	(4) 500 kcmil	3-1/2"	(4) 500 kcmil	#3	
24	400	N/A	N/A	(2) 2"	2 SETS OF (3) #30	(2) 2"	2 SETS OF (4) #30	#3	
24I	400	N/A	N/A	(2) 2"	2 SETS OF (3) #30	(2) 2"	2 SETS OF (4) #30	(2) #3 *	
25	450	N/A	N/A	(2) 2"	2 SETS OF (3) #40	(2) 2-1/2"	2 SETS OF (4) #40	#2	
26	500	N/A	N/A	(2) 2-1/2"	2 SETS OF (3) 250 kcmil	(2) 2"	2 SETS OF (4) 250 kcmil	#2	
27	600	N/A	N/A	(2) 3"	2 SETS OF (3) 350 kcmil	(2) 3"	2 SETS OF (4) 350 kcmil	#1	
28	700	N/A	N/A	(2) 3"	2 SETS OF (3) 500 kcmil	(2) 3-1/2"	2 SETS OF (4) 500 kcmil	#10	
29	800	N/A	N/A	(3) 2-1/2"	3 SETS OF (3) 300 kcmil	(3) 3"	3 SETS OF (4) 300 kcmil	#10	
30	900	N/A	N/A	(3) 3"	3 SETS OF (3) 350 kcmil	(3) 3"	3 SETS OF (4) 350 kcmil	#20	
31	1000	N/A	N/A	(4) 2-1/2"	4 SETS OF (3) 250 kcmil	(4) 3"	4 SETS OF (4) 250 kcmil	#20	
32	1200	N/A	N/A	(4) 3"	4 SETS OF (3) 350 kcmil	(4) 3"	4 SETS OF (4) 350 kcmil	#30	
33	1500	N/A	N/A	(5) 3"	5 SETS OF (3) 400 kcmil	(5) 3"	5 SETS OF (4) 400 kcmil	#40	
34	1600	N/A	N/A	(6) 3"	6 SETS OF (3) 350 kcmil	(6) 3"	6 SETS OF (4) 350 kcmil	250 kcmil	
35	2000	N/A	N/A	(6) 3"	6 SETS OF (3) 500 kcmil	(6) 3-1/2"	6 SETS OF (4) 500 kcmil	250 kcmil	
36	2500	N/A	N/A	(8) 3"	8 SETS OF (3) 400kcmil	(8) 3"	8 SETS OF (4) 400 kcmil	350 kcmil	
37	3000	N/A	N/A	(8) 3"	8 SETS OF (4) 500 kcmil	(8) 3-1/2"	8 SETS OF (4) 500 kcmil	400 kcmil	

Ampacities based on N.E.C. Table 310.15(B)(16), for 75 degree C conductors.

Conductor sizes indicated are minimum sizes. Ampacities of conductors do not take voltage drop into consideration. Contractor shall size conductors for feeders and branch circuits to prevent a voltage drop exceeding 3 percent at the farthest outlet of power, heating, and lighting loads, or combination of such loads, and where the maximum total voltage drop on both feeders and branch circuits to the farthest outlet does not exceed 5 percent, to provide reasonable efficiency of operation.

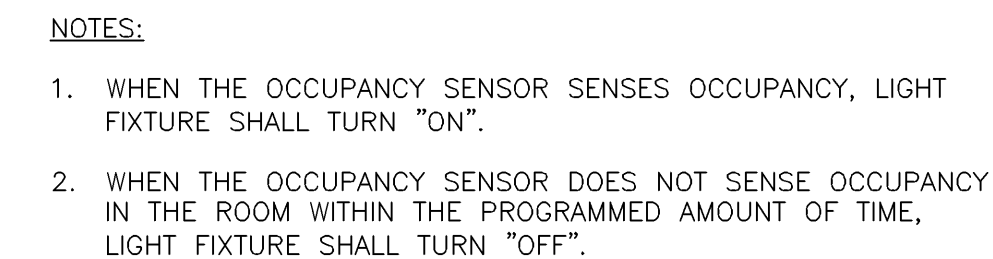
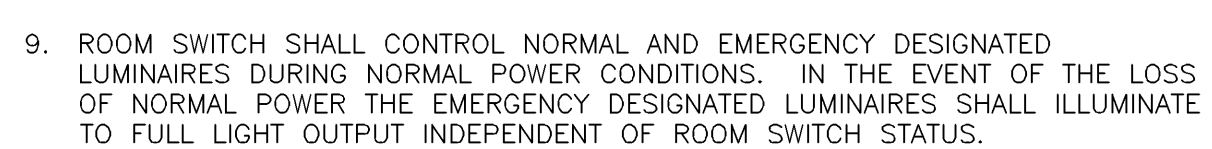
○ - SINGLE-PHASE, TWO-WIRE FEEDER, NUMBER IS THE FEEDER ID #
X - SINGLE OR THREE-PHASE, THREE-WIRE FEEDER, NUMBER IS THE FEEDER ID #
X - THREE-PHASE, FOUR-WIRE FEEDER, NUMBER IS THE FEEDER ID #

* - (1) EQUIPMENT GROUNDING CONDUCTOR AND (1) ISOLATED EQUIPMENT GROUNDING CONDUCTOR

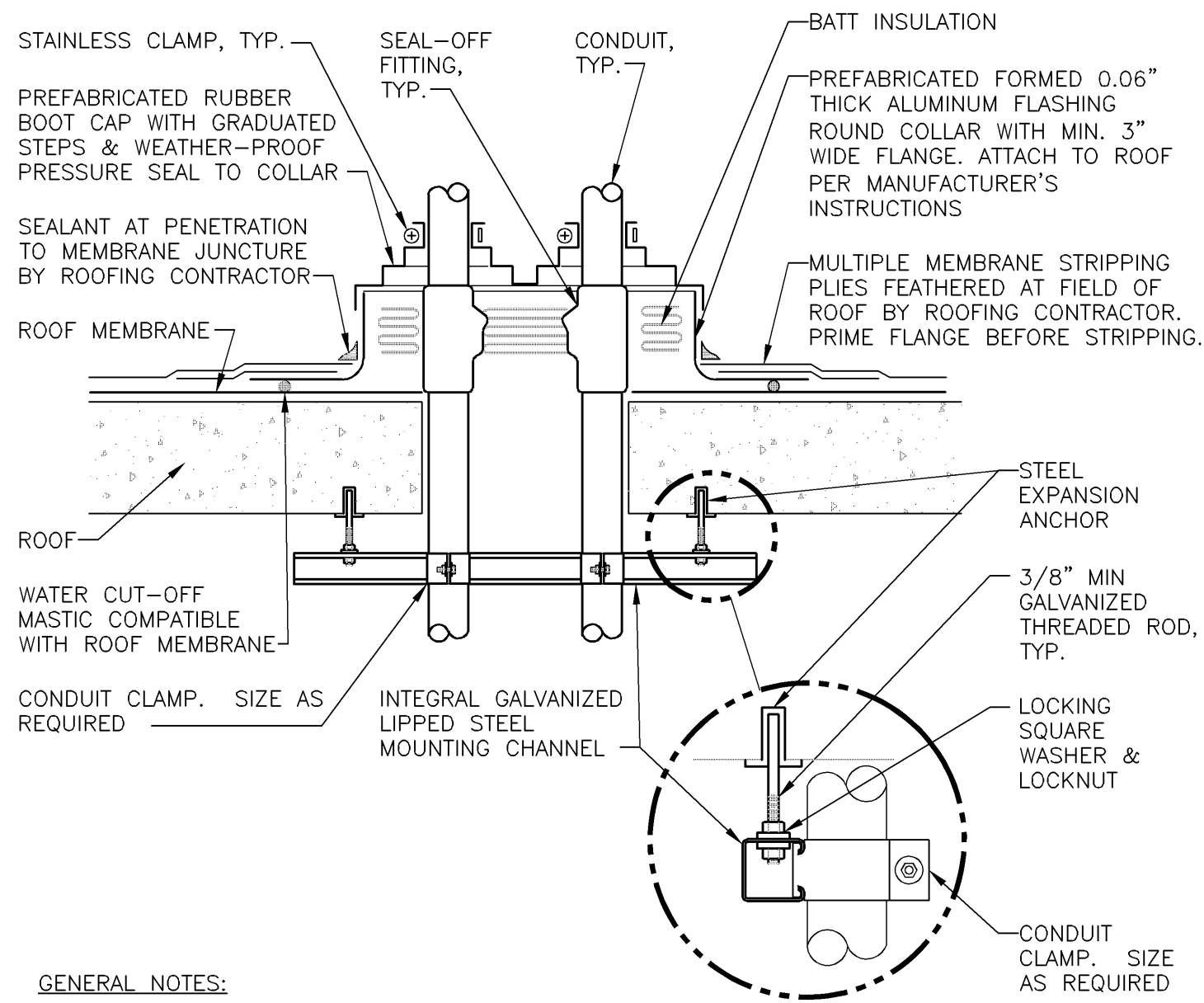
- ### KEY NOTES
- REMOVE EXISTING 800A FEEDER FOR ATS-1.
 - REMOVE EXISTING 1500A ATS-2 MAIN BREAKER AND 150A FEEDER FOR ATS-2.
 - REMOVE EXISTING MCC-C AND MCC-D, ASSOCIATED 150A FEEDERS, AND ALL ASSOCIATED BRANCH MOTOR CIRCUITS. REMOVE 150A/3P BREAKERS FROM EXISTING PANEL DPHE.
 - REPLACE EXISTING PANEL "A" WITH NEW PANELBOARD.
 - REPLACE EXISTING PANEL "B" WITH NEW PANELBOARD.
 - SHUNT TRIP CIRCUIT BREAKER CONTROLLED THROUGH FIRE ALARM CONTROL PANEL.
 - REPLACE EXISTING 400A FEEDER FOR PANEL PDC-LHE*
 - REPLACE EXISTING 200A FEEDER FOR PANEL "HR"
 - EXISTING 13.8 KV HIGH VOLTAGE SWITCH AND 13.8 KV TO 480/277V TRANSFORMER TO BE REPLACED WITH NEW FEEDER UNDER A SEPARATE CONTRACT.
 - EXISTING MOTOR TO BE RECIRCUITED FROM NEW 480V PANEL.
 - EXISTING MOTOR TO BE RELOCATED AND RECIRCUITED FROM NEW 480V PANEL.
 - PROVIDE PANEL WITH ISOLATED EQUIPMENT GROUND BAR IN ADDITION TO STANDARD EQUIPMENT GROUND BAR.
 - MANUAL TRANSFER SWITCH POSITION TO BE SWITCHED TO EMERGENCY FEED SOURCE. TRANSFER TO NORMAL FEED SOURCE WILL ONLY OCCUR DURING TESTING OF UPS.
 - FIRE ALARM CONTROL AND MONITORING MODULES FOR ACTIVATIONSUPERVISION OF SHUNT TRIP BREAKER FOR ELEVATOR POWER. CONTROL MODULE TO TRIP BREAKER IF ELEVATOR EQUIPMENT ROOM AND/OR HOISTWAY SHAFT HEAT DETECTORS INITIATE AN ALARM.
 - ALTERNATE #2 - DELETE 2UPS, MTS-1, AND ASSOCIATED FEEDERS AND FEEDER BREAKERS.
 - ALTERNATE #2 - REDESIGNATE PANEL AS "2ILE-1"
 - ALTERNATE #2 - REDESIGNATE PANEL AS "2OLE-1"
 - ALTERNATE #2 - PROVIDE 100A/3P CIRCUIT BREAKER IN PANEL "2DPLE" AND 100A FEEDER TO SERVE PANEL "2ILE-1"

ONE-LINE RISER DIAGRAM

Revisions:	Date	CONSULTANTS:	ARCHITECT/ENGINEERS:	Drawing Title	Project Title	Project Number	Office of Construction and Facilities Management
			13100 watertown plank road suite 200 elm grove, wi 53122 p 262.641.0746 f 262.641.0584	One-Line Riser Diagram	William S. Middleton VA Hospital Renovate Building 2	607-12-115	Department of Veterans Affairs
				Approved: Project Director	Location Madison, WI	Building Number 2	
					Date MARCH 29, 2013	Checked TK/LHZ	Drawing Number E-300
					Drawn JWS	Dwg. * of	



Q

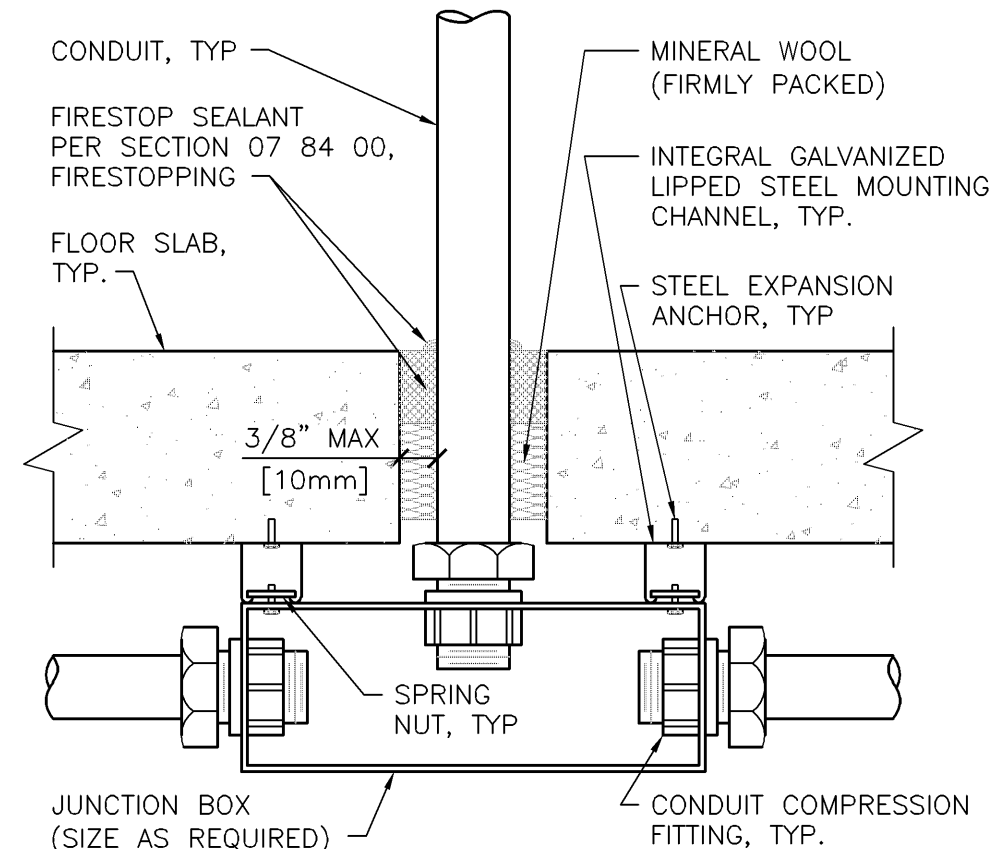


GENERAL NOTES:

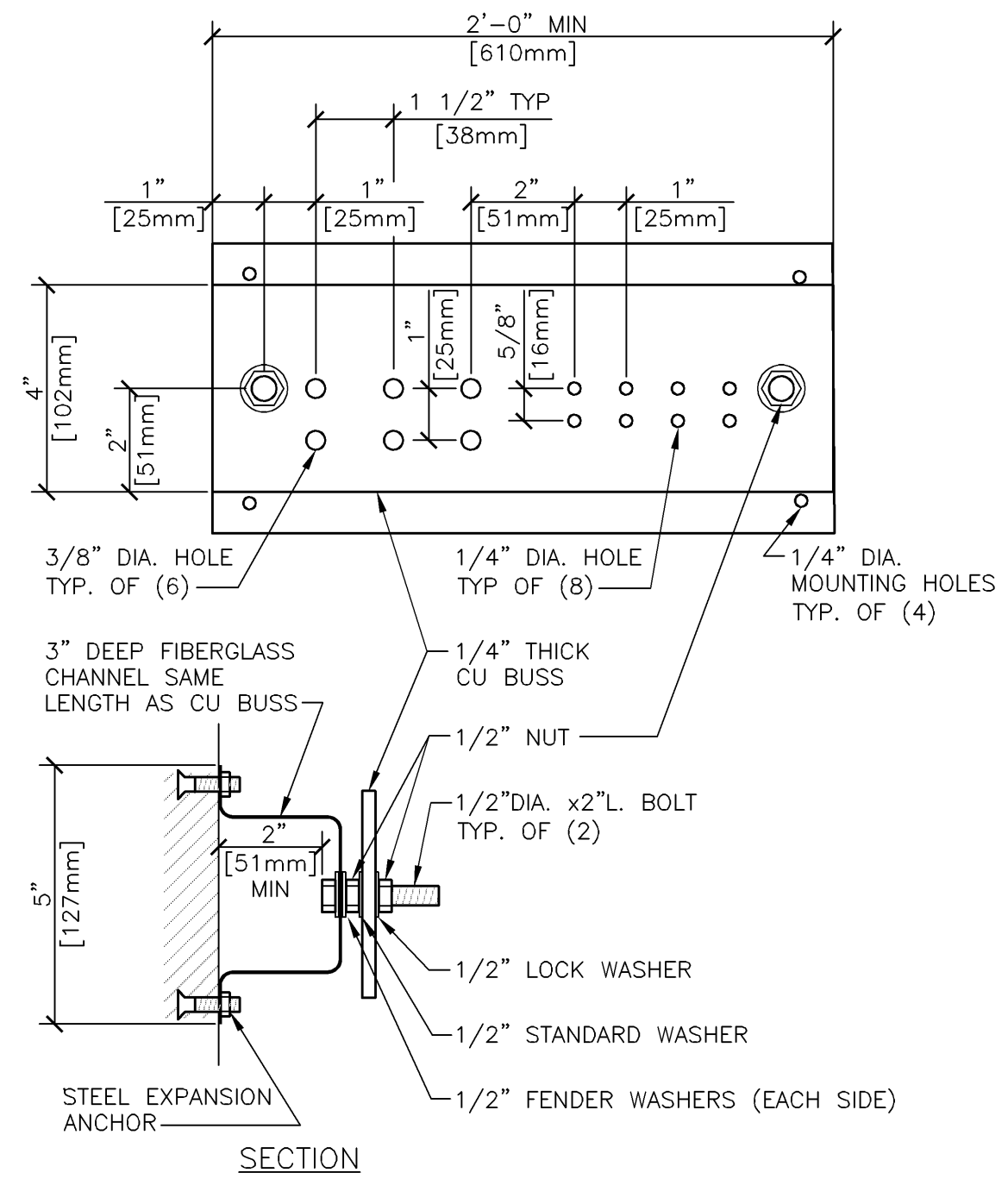
1. MAINTAIN A MINIMUM CLEARANCE OF 12" [308mm] ON ALL SIDES OF ROOF PENETRATION FROM WALLS, CURBS, AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.
2. FLANGES OF ADJACENT FLASHINGS SHALL NOT BE CUT OR OVERLAPPED.
3. VERIFY ROOF & STRUCTURAL SYSTEM WITH ARCHITECT.
4. COORDINATE FLASHING INSTALLATION WITH ROOFING CONTRACTOR TO ENSURE PROPER METHODS & MATERIALS ARE USED TO MAINTAIN ROOF WARRANTY.

10 ROOF PENETRATION DETAIL
NTS

7 NOT USED
NTS

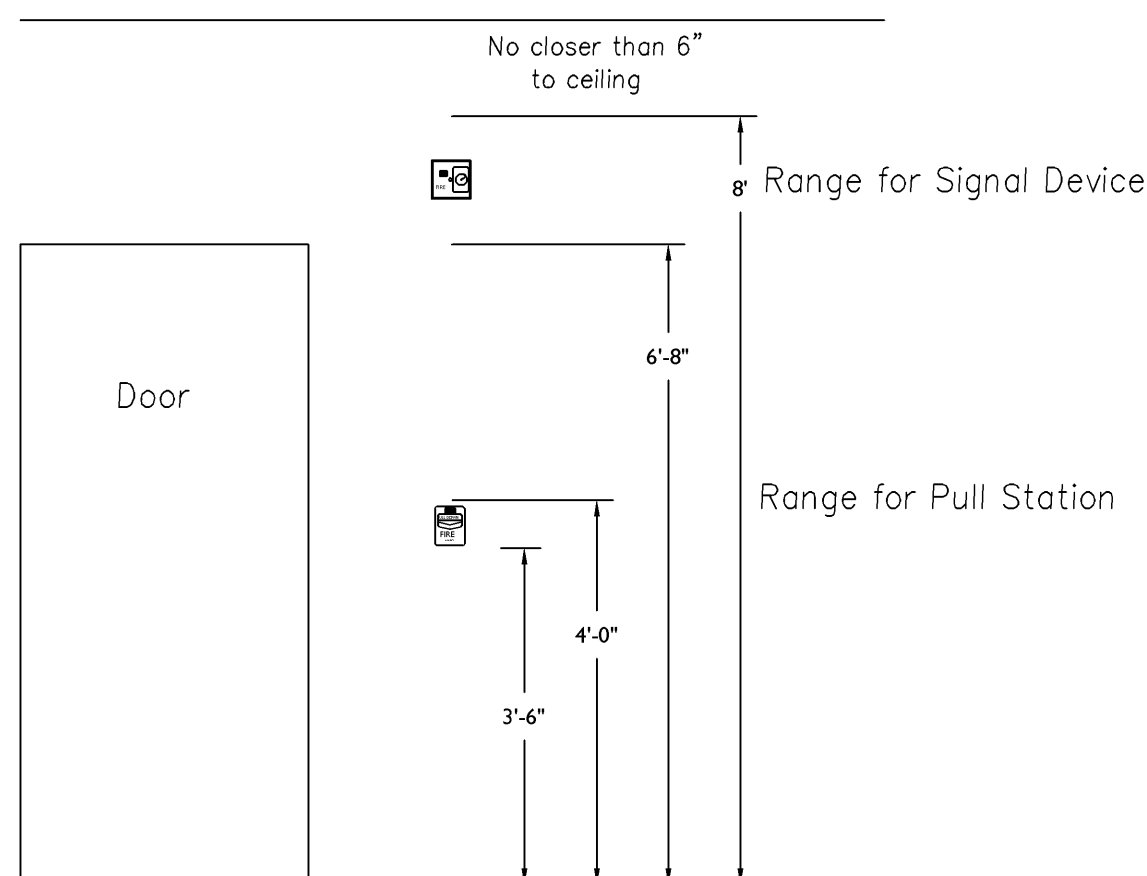


4 FLOOR SLAB PENETRATION DETAIL
NTS

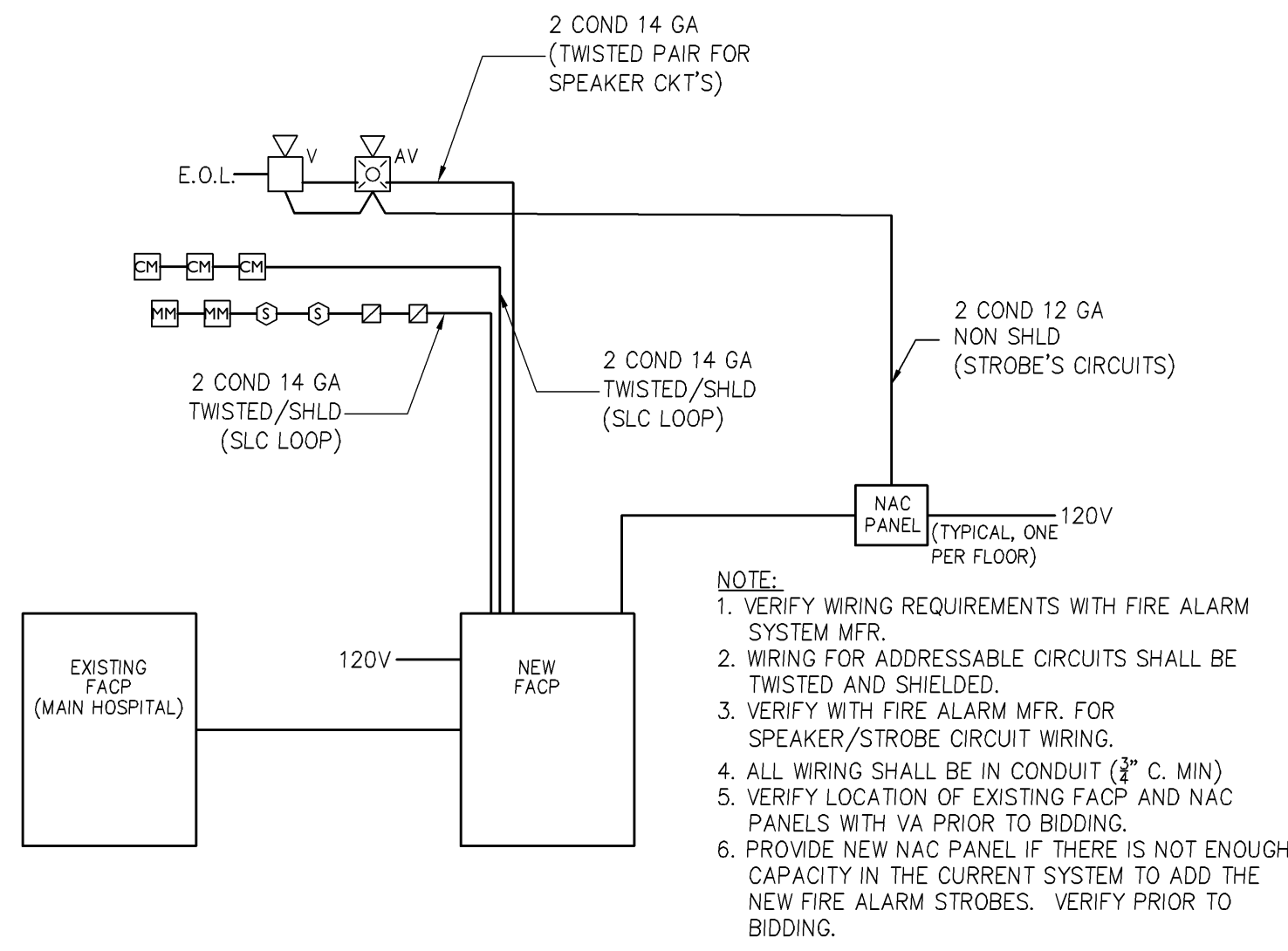


- GENERAL NOTES
1. ALL HARDWARE SHOWN SHALL BE STAINLESS STEEL.
 2. PROVIDE 1 MOUNTING POINT PER 12" OF BAR LENGTH.
 3. HOLES MAY BE ADDED IF REQUIRED.

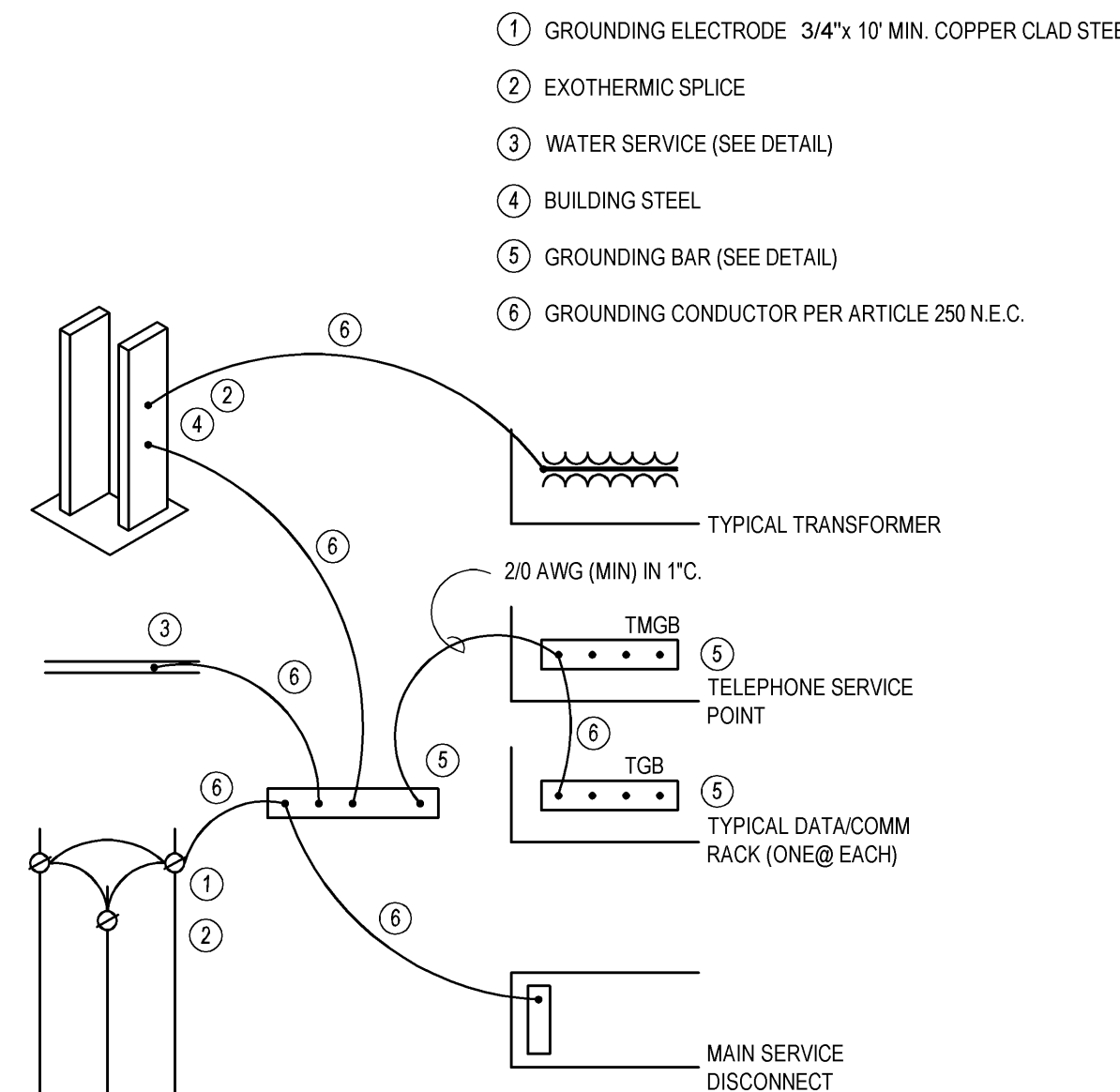
1 GROUNDING BAR DETAIL
NTS



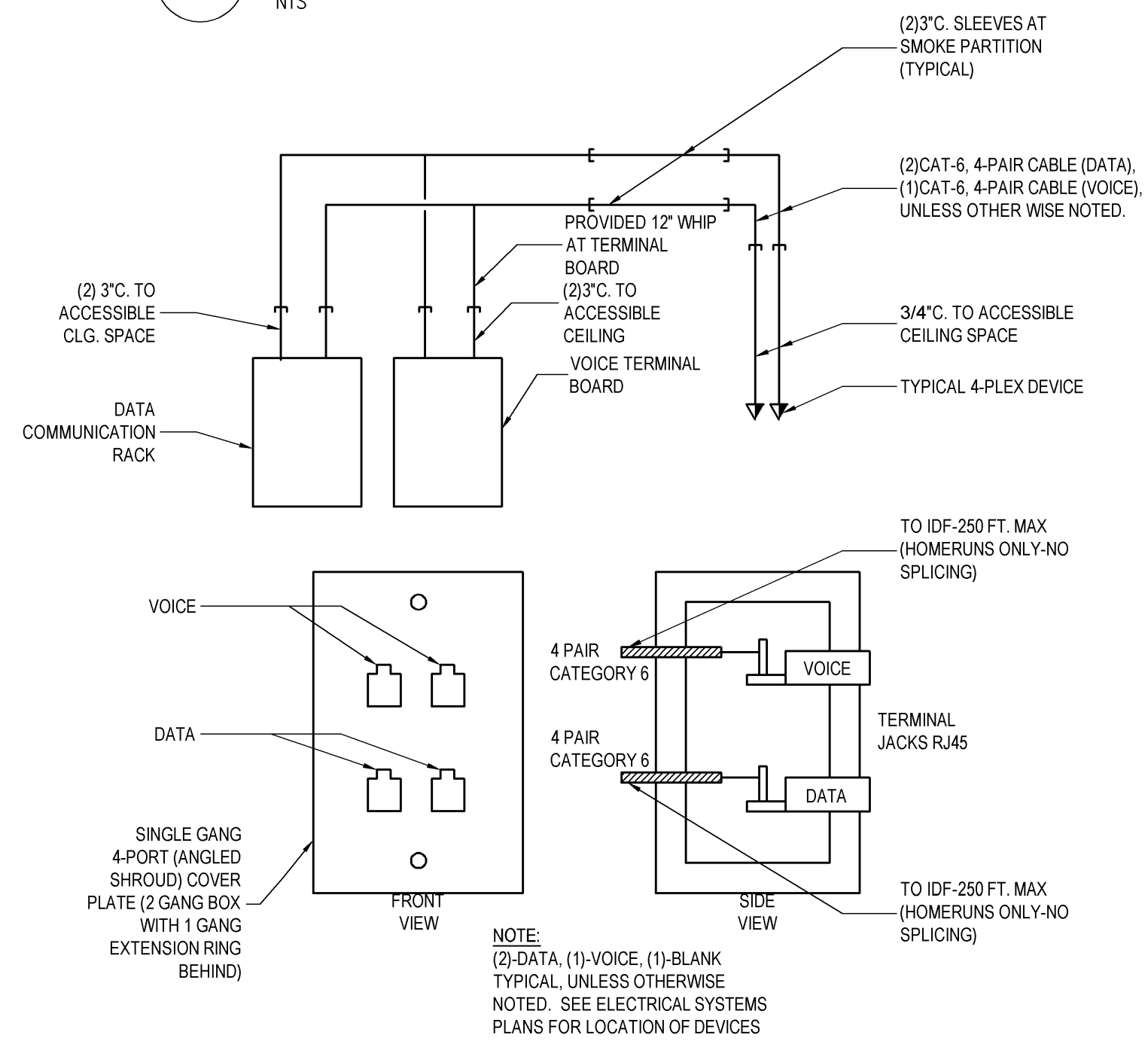
11 TYPICAL FIRE ALARM SIGNAL DEVICE AND PULL STATION MOUNTING HEIGHT
NTS



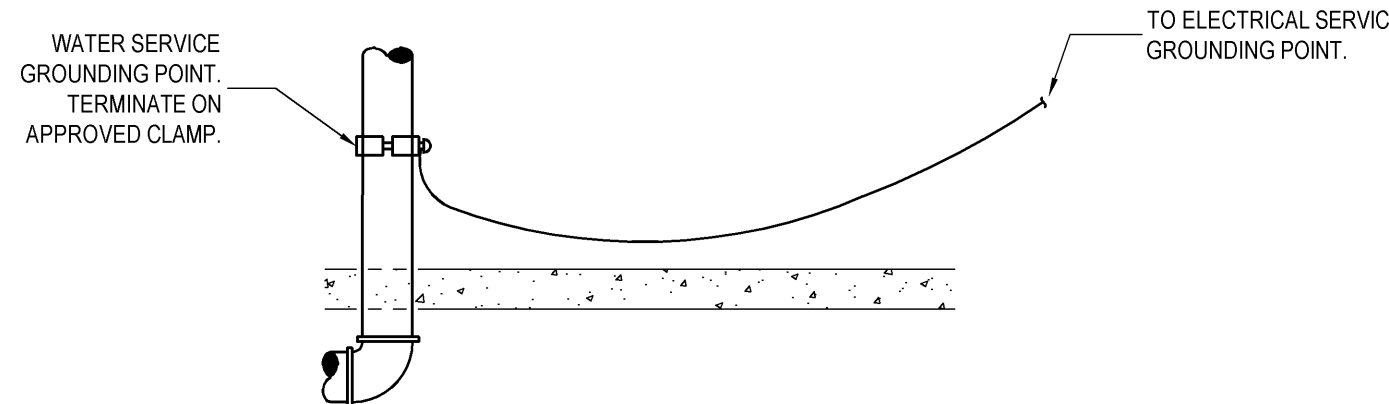
8 FIRE ALARM RISER DIAGRAM
NTS



5 GROUNDING RISER DIAGRAM
NTS

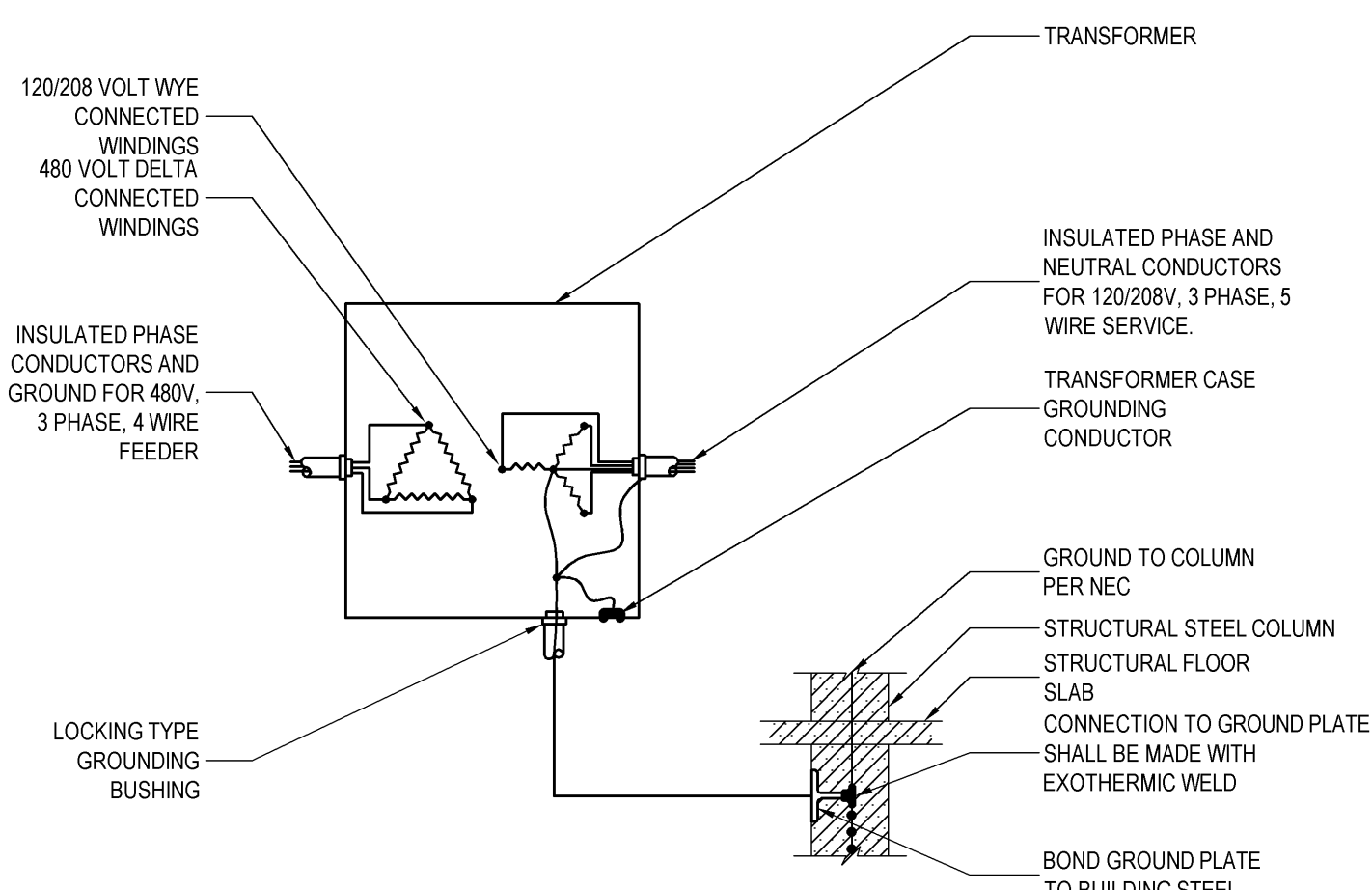


2 TYPICAL VOICE/DATA OUTLET
NTS

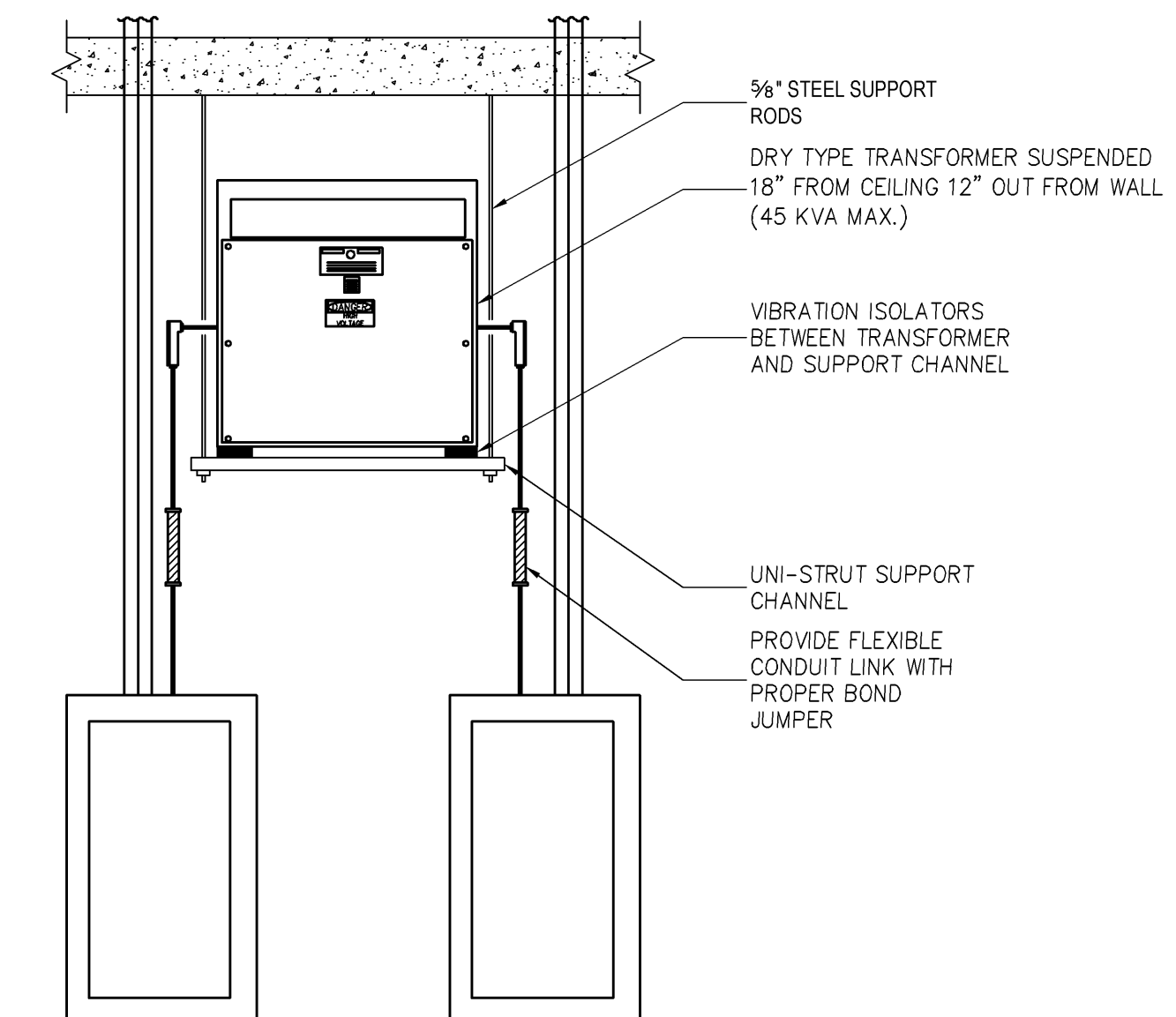


12 TYPICAL WATER SERVICE GROUNDING DETAIL
NTS

9 NOT USED
NTS



6 DRY TYPE TRANSFORMER GROUNDING DETAIL
NTS

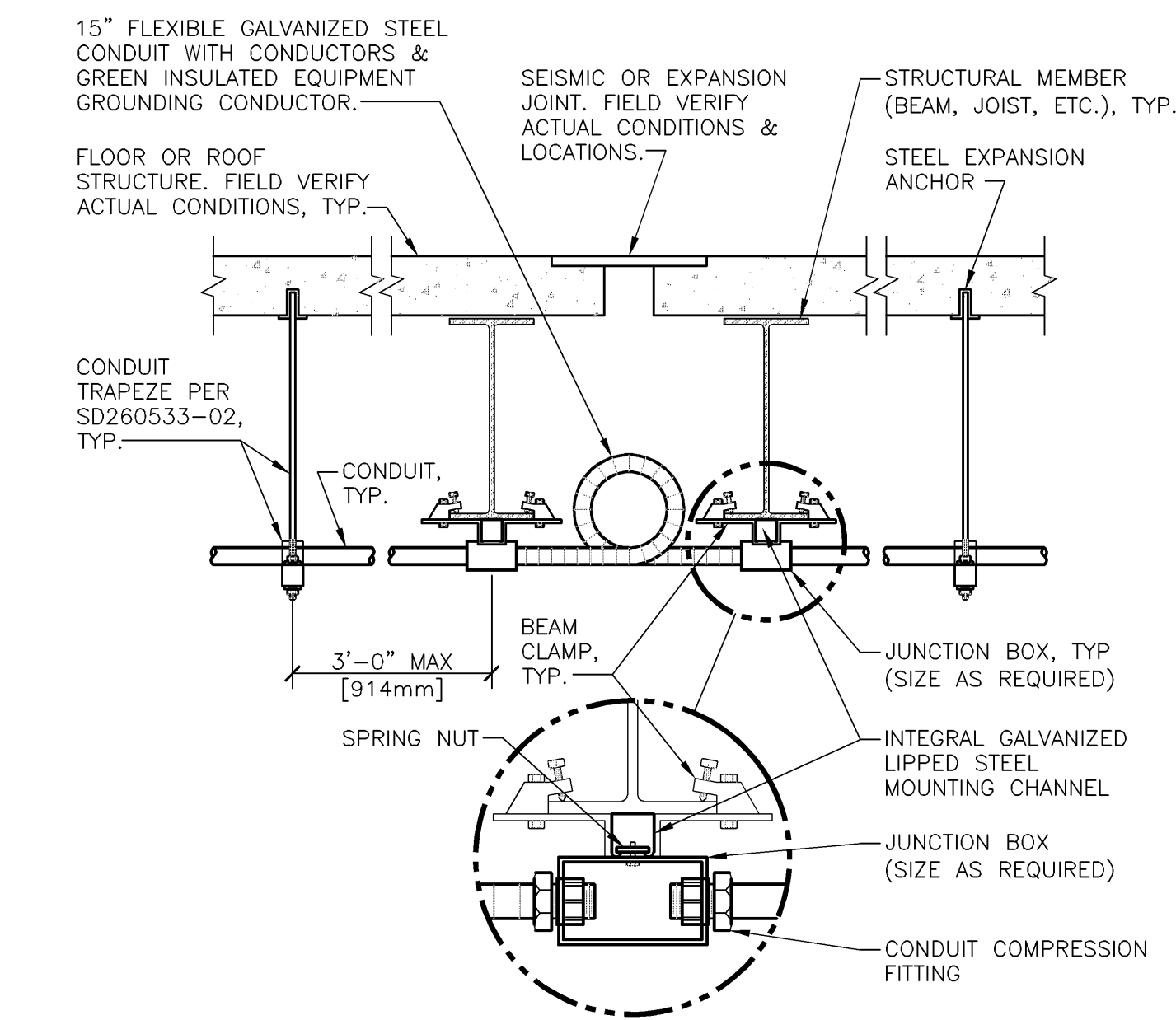


3 DRY TYPE TRANSFORMER GROUNDING DETAIL
NTS

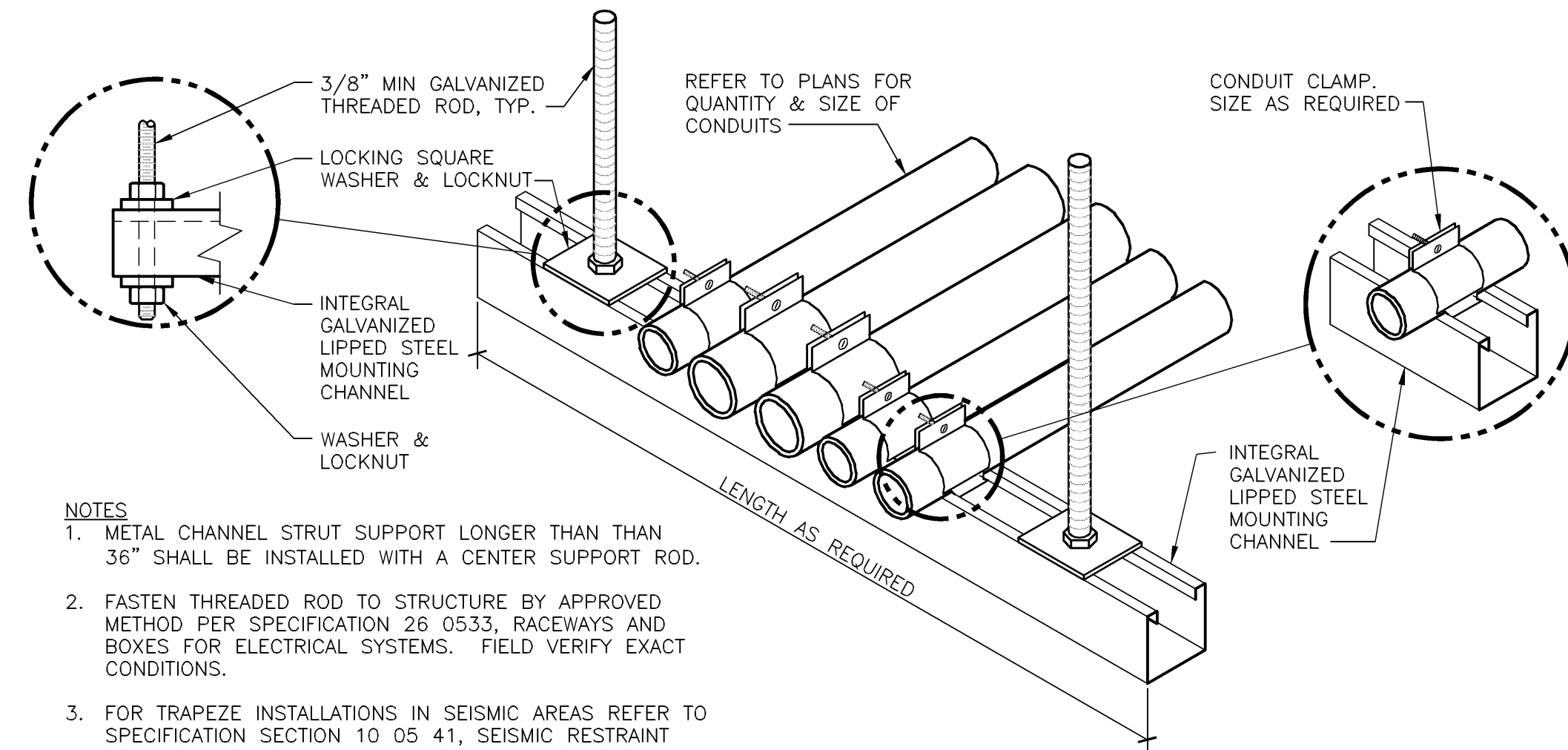
100% CONSTRUCTION DOCUMENTS

CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title Electrical Details	Project Title William S. Middleton VA Hospital Renovate Building 2	Project Number 607-12-115	Office of Construction and Facilities Management	
				Approved: Project Director	Location Madison, WI	Building Number 2		
Revisions:		Date		Date MARCH 29, 2013	Checked DS	Drawn KEB	Drawing Number E-501	
							Dwg. * of	

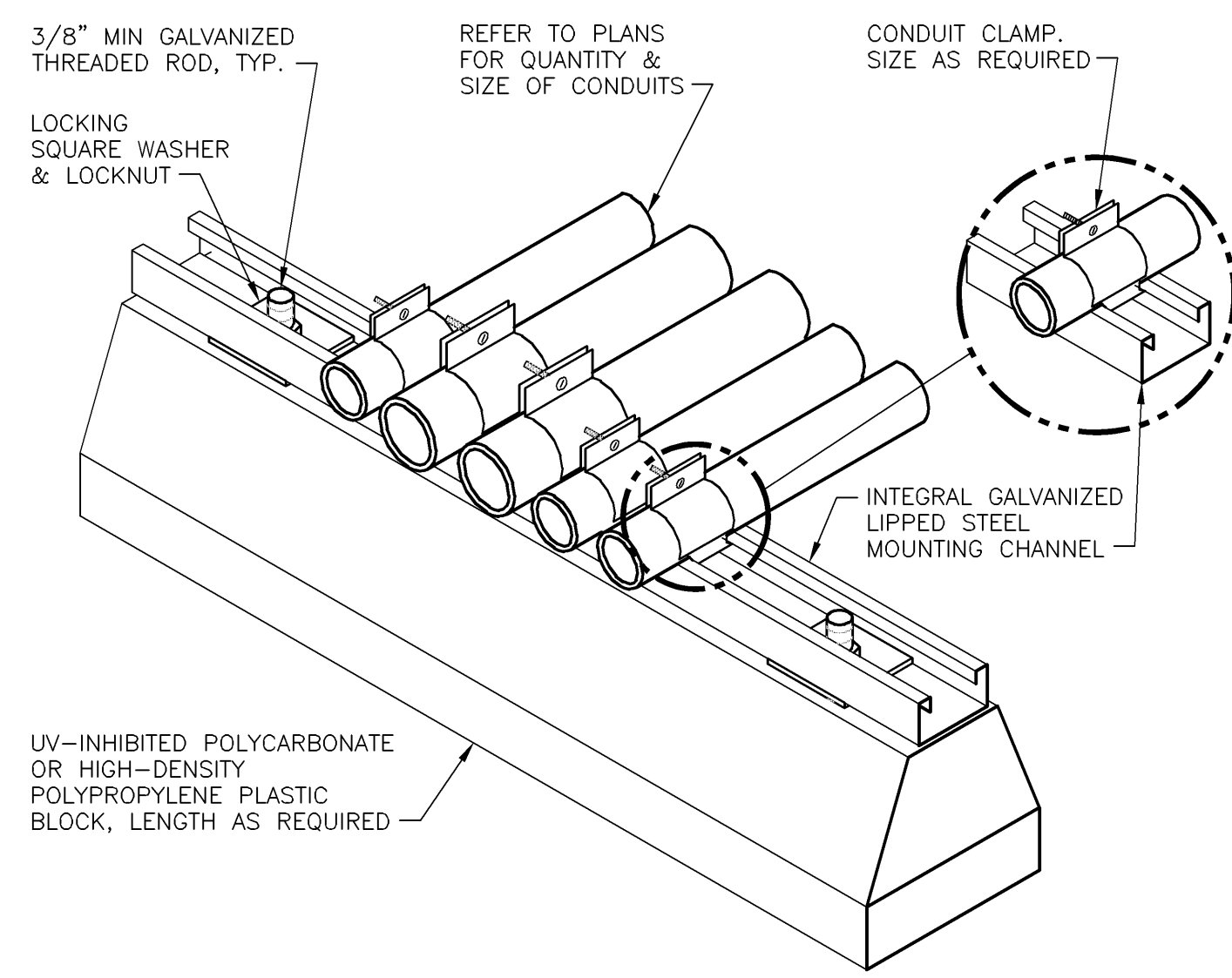
three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
one quarter inch = one foot
one eighth inch = one foot



7 CONDUIT JOINT CROSSING DETAIL
NTS



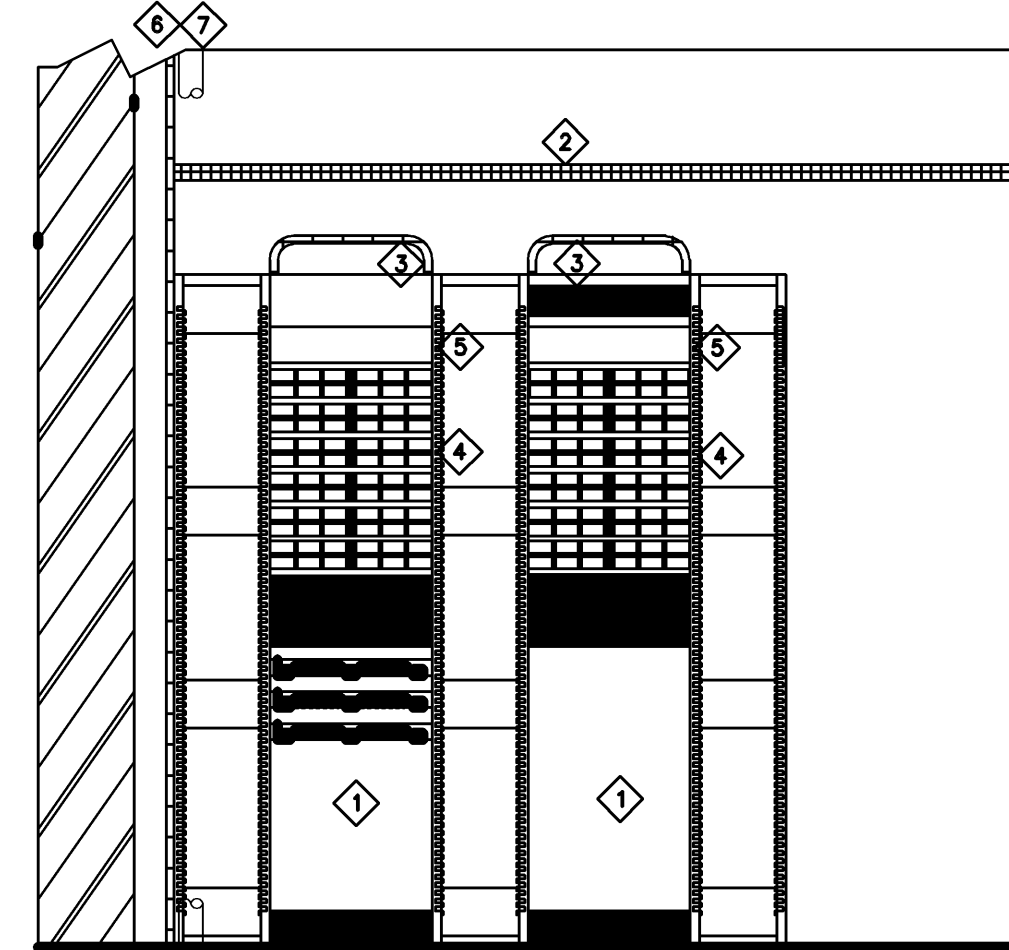
4 CONDUIT TRAPEZE MOUNTING DETAIL
NTS



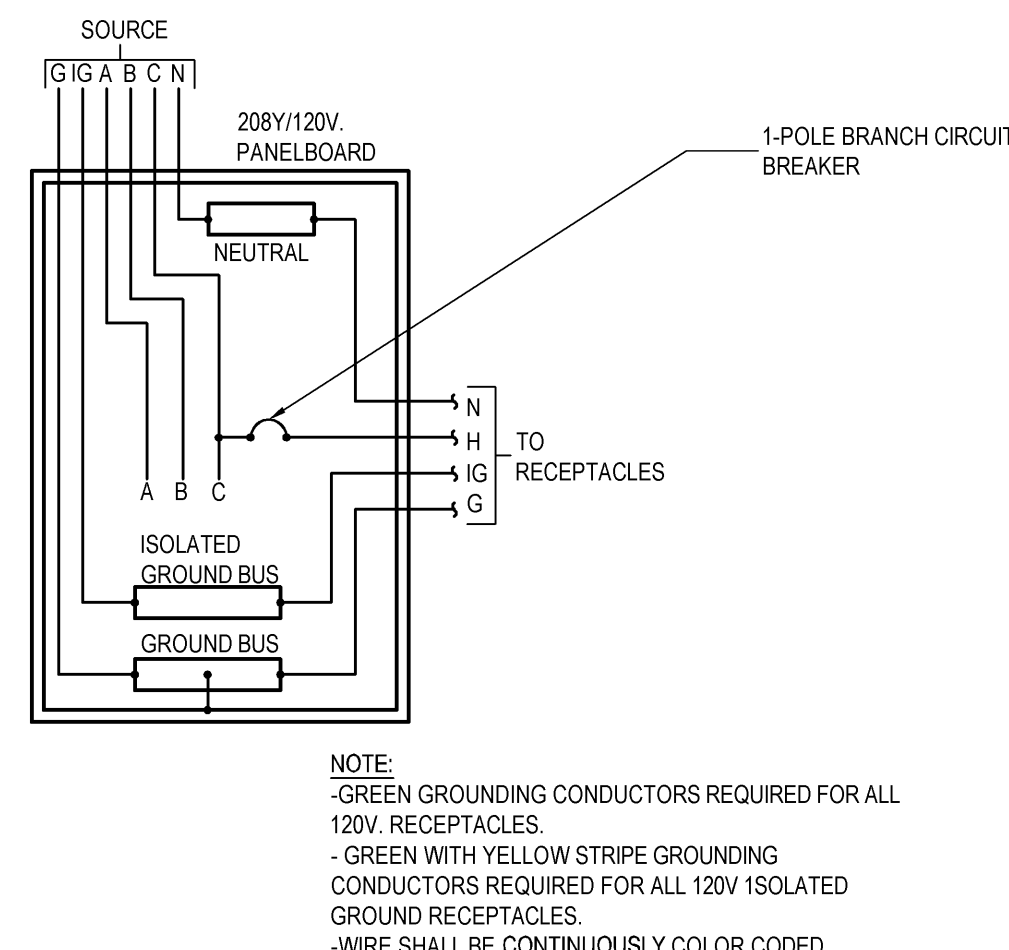
1 ROOF CONDUIT SUPPORT DETAIL
NTS

KEY NOTES

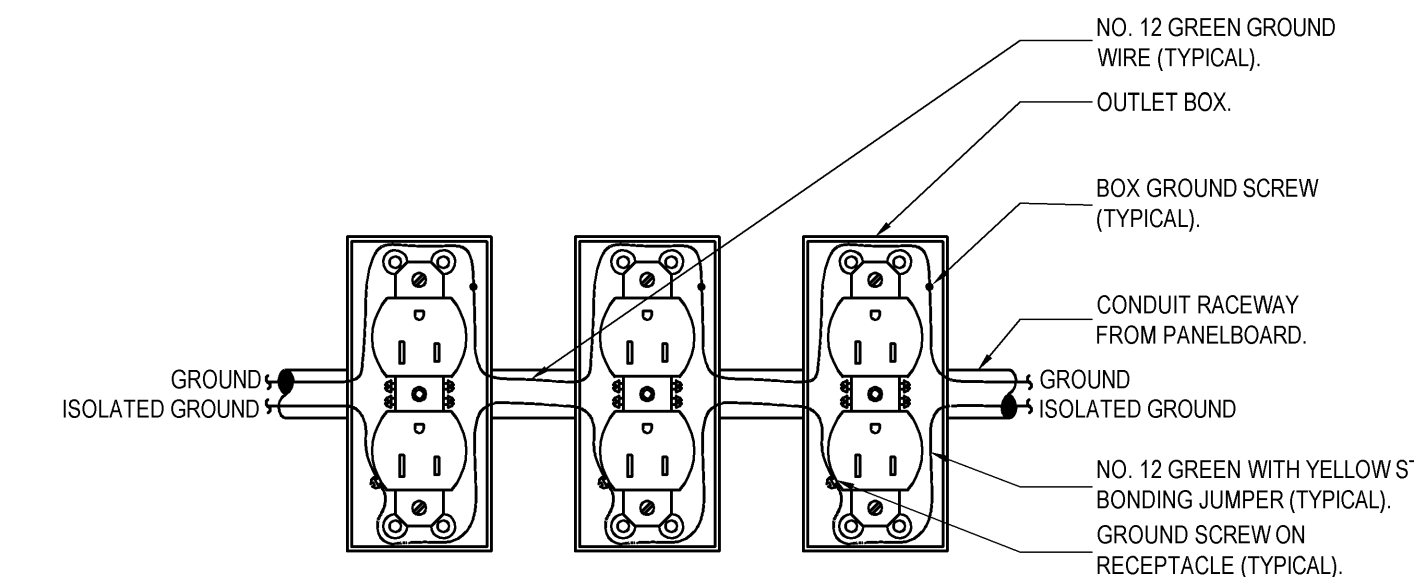
- 19"W x 96"H DATA RACK WITH 12" VERTICAL-HIGH CAPACITY DUAL-SIDED CABLE MANAGEMENT SYSTEM WITH DUAL-SIDED HINGED METAL COVER ON EACH SIDE.
- 24" WIDE LADDER TRAY OVER THE TOP OF THE DATA RACKS.
- PROVIDE DOUBLE WATER FALL CABLE MANAGEMENT ACCESSORY ABOVE EACH RACK.
- PROVIDE 48-PORT ANGLED PATCH PANELS WITH LABELS AND SUPPLIED WITH FACTORY INSTALLED OPTICAL TYPE FRONT REMOVABLE SNAP-IN FACEPLATES. PROVIDE PATCH PANELS TO HANDLE TOTAL NUMBER OF DEVICES WITH ONE 48 PATCH PANEL IN RESERVE. PROVIDE ONE STRAIN RELIEF FOR EACH 48-PORT PATCH PANEL IN THE BACK OF THE RACK. PROVIDE ONE HORIZONTAL CABLE MANAGER AT THE TOP OF EACH RACK (7 1/4" X 1 1/4" X 8") INSTALL MINI-COMB (7 1/4" X 1 1/4" X 8") PLUS UTP JACK MODULES -TG STYLE FOR DATA (YELLOW) AND VOICE (GREEN).
- FIBER-OPTIC RACK MOUNT ENCLOSURE WITH SIX LC DUPLEX MULTIMODE FIBER OPTIC ADAPTERS (ELECTRIC IVORY) WITH PHOSPHOR BRONZE SPLIT SLEEVES AND TWELVE LC DUPLEX SINGLEMODE FIBER OPTIC ADAPTERS (BLUE) WITH ZIRCONIA CERAMIC SPLIT SLEEVES.
- (23°C) STUBBED UP INTO CEILING SPACE AND (23°C) STUBBED DOWN INTO CEILING SPACE ON FIRST FLOOR FOR HORIZONTAL CABLING TO DATA RACKS.
- PROVIDE (23°C) STUBBED OUT FROM DATA CLOSET TO ABOVE CEILING OF SECOND FLOOR FOR DISTRIBUTION OF CABLING TO DATA DEVICES.



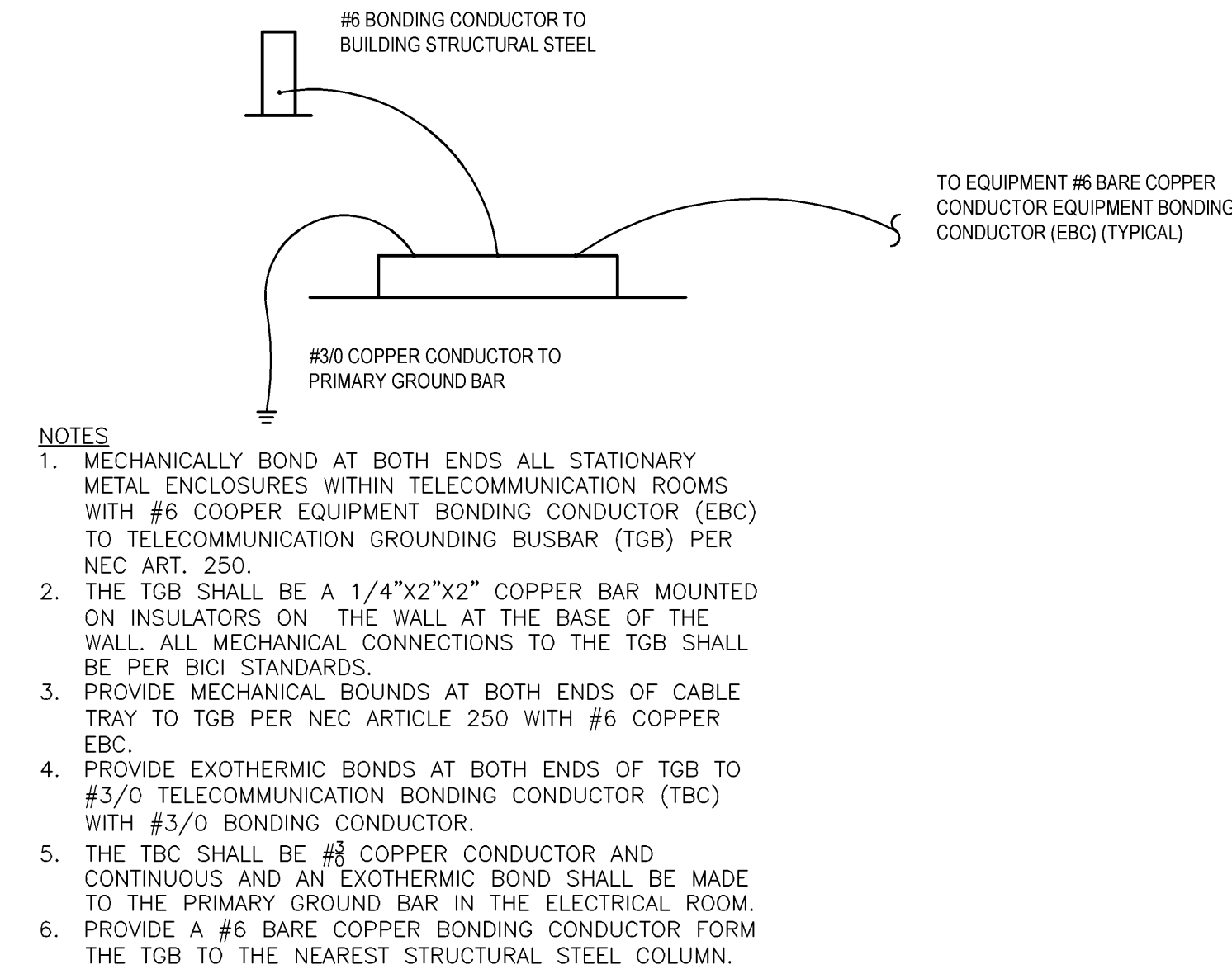
8 DATA ROOM RACK ELEVATIONS
1/2" = 1'-0"



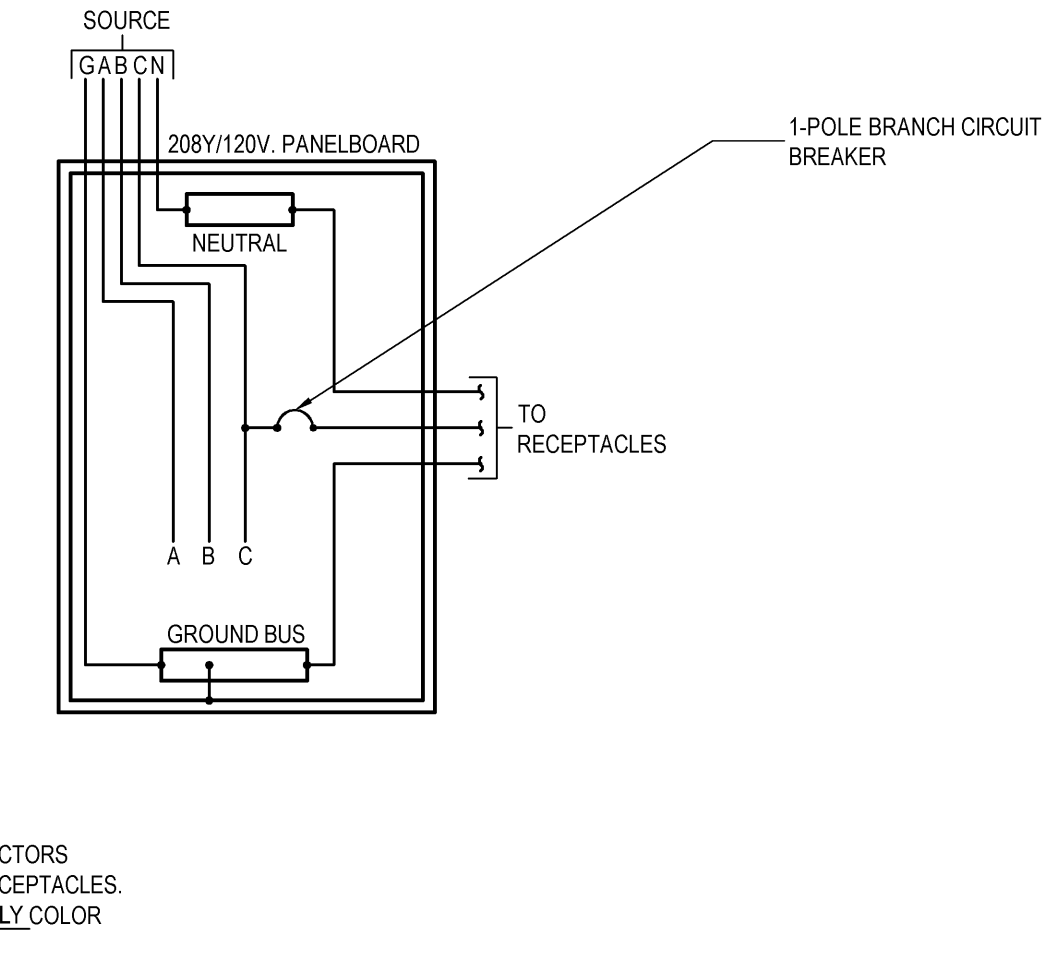
5 TYPICAL EQUIPMENT ISOLATED GROUNDING DETAIL
NTS



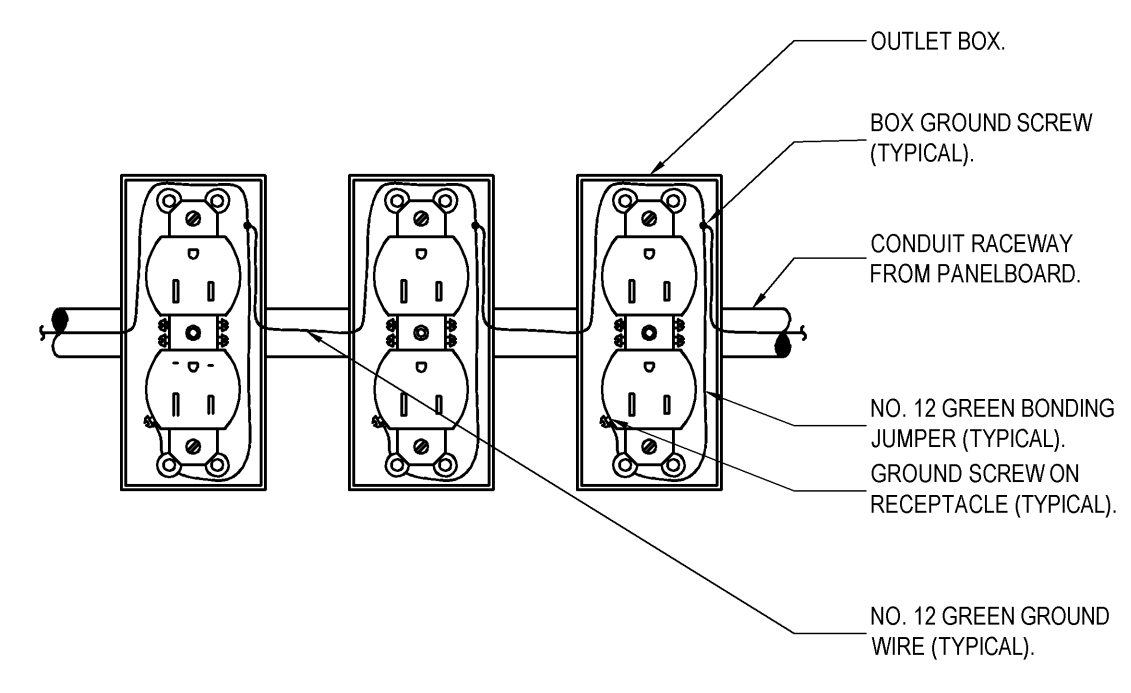
2 ISOLATED GROUND RECEPTACLE GROUNDING DETAIL
NTS



8 TELECOMMUNICATION ROOM BONDING
NTS



6 TYPICAL EQUIPMENT GROUNDING DETAIL
NTS



3 TYPICAL RECEPTACLE GROUNDING DETAIL
NTS

Revisions:		Date	
CONSULTANTS:		ARCHITECT/ENGINEERS:	
		13100 watertown plank road suite 200 elm grove, wi 53122 p 262.641.0746 f 262.641.0584	
		magel architects	
		IBC ENGINEERING SERVICES INC. N8 W22195 JOHNSON DR. STE 180 262.549.1190 WAUKESHA, WI 53186 1x 262.549.1620	
Drawing Title Electrical Details		Project Number 607-12-115	
Approved: Project Director		Location Madison, WI	
		Date MARCH 29, 2013	
		Checked DS	
		Drawn KEB	
		Building Number 2	
		Drawing Number E-502	
		Dwg. * of	
		Office of Construction and Facilities Management	
		Department of Veterans Affairs	

LIGHTING FIXTURE SCHEDULE

FIXT.	DESCRIPTION	LAMPING		VOLT	MOUNT	CEILING	MANUFACTURER	CATALOG NUMBER	ACCESSORIES	SEE NOTE
		TYPE	INPUT							
A12	12 LINEAR DIRECT/INDIRECT LED PENDANT FIXTURE W/ DIMMING	LED 4731 LUMEN, 3500K/4FT	150W	UNIVERSAL	PENDANT	LAY-IN	CORELITE	J2-W-M-3L-35-1-D-UNV-A-C-24"-XX-12-DL4-DC	20 UP/1 80 DOWN	1.6,8
A16	16 LINEAR DIRECT/INDIRECT LED PENDANT FIXTURE	LED 4731 LUMEN, 3500K/4FT	200W	UNIVERSAL	PENDANT	LAY-IN	CORELITE	J2-W-M-3L-35-1-D-UNV-A-C-24"-XX-16-DL8-DC	40 UP/1 60 DN	1.6,8
B1	2X4 VOLUMETRIC TROFFER W/ DIMMING	LED 4355 LUMENS, 3500K	49W	UNIVERSAL	SURFACE	-	LITHONIA	RTLX4-43L-D49-LP835-XX		1
B2	2X4 VOLUMETRIC TROFFER	LED 4355 LUMENS, 3500K	49W	UNIVERSAL	SURFACE	-	LITHONIA	RTLX4-43L-D49-LP835	1-LEVEL SWITCHED CONTROL	1
C1	RECESSED PERIMETER FIXTURE	LED 1207 LUMENS, 3500K / 4 FT	23W / 4 FT	277V	RECESSED	LAY-IN	FOCAL POINT	FTRL-AC-1L11-135-1C-277-G-SS-WH-XX		5
D1	4" LED DOWNLIGHT	LED 800 LUMENS, 3500K	13W	UNIVERSAL	RECESSED	VARIABLES	PATHWAY	4VLED80035K/4VLED5CLPF		1
D2	6" LED DOWNLIGHT	LED 1300 LUMENS, 3500K	21W	UNIVERSAL	RECESSED	VARIABLES	PATHWAY	6VLED130035K/6VLED5CLPF		1
D3	6" LED SHOWERLIGHT	LED 1300 LUMENS, 3500K	21W	UNIVERSAL	RECESSED	VARIABLES	PATHWAY	4VLEDWL130035K/4VLEDWLSCLPF		
D4	4" LED WALL WASH	LED 1300 LUMENS, 3500K	21W	UNIVERSAL	RECESSED	VARIABLES	PATHWAY	4VLEDWW120035K/4VLEDWWSCLPF		1
EBU	EMERGENCY BATTERY UNIT	LED W/ UNIT	1W	UNIVERSAL	WALL	-	ISOLITE	ELL-6-18-2-SM-SD-NC-18W-USA		
EX1	42" EXTERIOR LED BOLLARD	LED 1924 LUMENS, 4000K	26W	UNIVERSAL	GROUND	-	US ARCHITECTURAL	TNA-24LED120-XX		8
EX2	EXTERIOR WALL MOUNT	LED 1626 LUMENS, 4000K	26W	UNIVERSAL	WALL	-	INVUE	ENC-B01-LED-BL4-XX-PC	INTEGRAL PHOTOCELL	8
F8	8" SURFACE MOUNTED SLOT	LED 800 LUMENS, 3500K / 1 FT	10.6W / 1 FT	UNIVERSAL	SURFACE	EXPOSED	AXIS	BBSLED-B1-800-35-SO-8-M11LED0-XX-UNV-1-S		8
G1	4" VAPORTIGHT STRIP	LED 2953 LUMENS, 3500K	36W	UNIVERSAL	SURFACE	EXPOSED	METALUX	VT-LD2-300R-UNV-L835-WL		
J1	2 LED UNDERCABINET LIGHT	LED 640 LUMEN, 3000K	14W	120V	SURFACE	CABINET	LUMAX	UCL-24-14-640-CP5-W		7
K1	OVER MIRROR FIXTURE	LED 514 LUMENS, 3500K	10W	120V	WALL		BIRCHWOOD LIGHTING	HA1225RSM-HF2N-H-35-2-XX-FW-120-EB		8
M4	4" SURFACE MOUNTED STRIP	LED 2300 LUMENS, 3500K	32W	UNIVERSAL	CHAIN HUNG	EXPOSED	LITHONIA	ZL2-L48-2300L-LP835-HC26		
M5	4" SURFACE MOUNTED STRIP W/ DIMMING	LED 2300 LUMENS, 3500K	32W	UNIVERSAL	CHAIN HUNG	EXPOSED	LITHONIA	ZL2-L48-2300L-LP835-HC26		
N4	4" SURFACE MOUNTED DIRECT FIXTURE W/ DIMMING	LED 3623 LUMENS, 3500K	24W	UNIVERSAL	SURFACE	-	LITHONIA	RTLX4-24L-D24-LP835-XX		1.8
P4	4" WALL MOUNTED DIRECT/INDIRECT FIXTURE W/ DIMMING	LED 3858 LUMEN, 3500K/4FT	39W	UNIVERSAL	WALL	-	CORELITE	J2W-W-M-2L-35-1-D-UNV-SU-WA-C-4-DC-XX		1.8
P8	8" WALL MOUNTED DIRECT/INDIRECT FIXTURE W/ DIMMING	LED 3858 LUMEN, 3500K/4FT	78W	UNIVERSAL	WALL	-	CORELITE	J2W-W-M-2L-35-1-D-UNV-SU-WA-C-8-DC-XX		1.8
X1	SINGLE FACED, CEILING MOUNTED EXIT SIGN	LED W/ UNIT	1W	UNIVERSAL	SURFACE	VARIABLES	ISOLITE	LPDC-AC-R-S-AB-UN		2.3,4
X2	DOUBLE FACED, CEILING MOUNTED EXIT SIGN	LED W/ UNIT	1W	UNIVERSAL	SURFACE	VARIABLES	ISOLITE	LPDC-AC-R-S-AB-UN		2.3,4
X3	SINGLE FACED, WALL MOUNTED EXIT SIGN	LED W/ UNIT	1W	UNIVERSAL	SURFACE	VARIABLES	ISOLITE	LPDC-AC-R-S-AB-UN		2.3,4

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

- A. CONTRACTOR SHALL CONFIRM CEILING TYPE REQUIREMENTS PRIOR TO THE RELEASE OF THE ORDER.
- B. CATALOG NUMBERS ARE TO PROVIDE GUIDANCE ONLY AND MAY NOT BE COMPLETE.
- C. FIXTURES SPECIFIED TO MEET DESIGN INTENT. EQUALS MAY BE SUBSTITUTED SUBJECT TO DESIGN TEAM'S APPROVAL.
- D. PROVIDE ALL EQUIPMENT AND ACCESSORIES NECESSARY FOR A COMPLETE AND FUNCTIONAL INSTALLATION.
- E. FIXTURES EQUALS MUST MEET BUY AMERICAN / ARA STANDARDS AS REQUIRED BY THE GC TO MEET THE OVERALL BUILDING COMPLIANCE WITH BUY AMERICAN ACT TITLE 49 USC SECTION 50101

LIGHTING FIXTURE SCHEDULE KEY NOTES:


1. VERIFY DIMMER COMPATIBILITY WITH DIMMING DRIVER.
2. FIELD SELECTABLE CHEVRONS SHALL BE APPLIED OR INSTALLED/REMOVED AS INDICATED ON PLANS AND AS REQUIRED BY ALL GOVERNING CODES.
3. PROVIDE NUMBER OF FACES AS INDICATED ON PLANS AND AS REQUIRED BY ALL GOVERNING CODES.
4. ALL EXIT SIGNS MUST MEET ALL CITY, STATE, VA STANDARDS AND NATIONAL CODES INCLUDING BUT NOT LIMITED TO IBC 1011 AND ANSI-A117.1 SEC 703.
5. EC SHALL PROVIDE FIXTURES IN CONFIGURATIONS AND LENGTH AS SHOWN ON DRAWINGS. PROVIDE FIXTURE WITH SLIDING SLEEVES AT END OF RUNS WHERE REQUIRED TO ACCOMMODATE LENGTHS. JOB SPECIFIC LAYOUT DRAWINGS SHALL BE SUBMITTED WITH SHOP DRAWINGS FOR APPROVAL. FIXTURE MUST BE INSTALLED PRIOR TO CEILING INSTALLATION.
6. MOUNT FIXTURES 18" BELOW CEILING. VERIFY MOUNTING ACCESSORIES PER CEILING TYPE AND SIZE OF T. PRIOR TO ORDERING.
7. PROVIDE ALL NECESSARY COMPONENTS, JUMPERS, HARDWARES, MODULES AND ACCESSORIES FOR A HARDWIRED, COMPLETE AND FUNCTIONAL INSTALLATION.
8. ARCHITECT SHALL SELECT FINISH FROM MANUFACTURER'S STANDARD OR MANUFORMER SELECTION.

[illegible]


 one eighth inch = one foot
 0 4 8

 one quarter inch = one foot
 0 4


 one half inch = one foot
 0 2


 three eighths inch = one foot
 0 4

 one inch = one foot
 0 4 8 16


 one and one half inches = one foot
 0 6

 two inches = one foot
 0 6


 three inches = one foot
 0 6

SPECIAL PURPOSE OUTLET SCHEDULE														
MARK	TO FEED	LOCATION	KW	HP	FLA	VOLT	PH	FEED FROM	SIZE	BREAKER	TYPE	DIRECT	OTHER	SEE NOTE
								PANEL	CKT	SIZE	POLE	RECP		
1	COPIER	104	1440	-	12	120	1	21LE	13	20	1	X		
2	COPIER	210	1440	-	12	120	1	22LE	23	20	1	X		
3	FAUCET SENSOR XFMR	105	0400	-	-	120	1	21LE	7	20	1		X	2
4	FAUCET SENSOR XFMR	106	0400	-	-	120	1	21LE	7	20	1		X	2
5	FAUCET SENSOR XFMR	213	0400	-	-	120	1	22B1E	19	20	1		X	2
6	FAUCET SENSOR XFMR	213	0400	-	-	120	1	22B1E	19	20	1		X	2
7	FAUCET SENSOR XFMR	214	0400	-	-	120	1	22E1E	19	20	1		X	2
8	FAUCET SENSOR XFMR	214	0400	-	-	120	1	22E1E	19	20	1		X	2
9	FAUCET SENSOR XFMR	304	0400	-	-	120	1	23LE	10	20	1		X	2
10	FAUCET SENSOR XFMR	304A	0400	-	-	120	1	23LE	10	20	1		X	2
11	FAUCET SENSOR XFMR	305	0400	-	-	120	1	23LE	10	20	1		X	2
12	FAUCET SENSOR XFMR	305A	0400	-	-	120	1	23LE	10	20	1		X	2
13	ELEC. WATER COOLER EWC-1	117	0370	-	4.0	120	1	21LE	10	20	1	X		
14	ELEC. WATER COOLER EWC-1	203	0370	-	4.0	120	1	22E1E	21	20	1	X		
15	ELEC. WATER COOLER EWC-1	303	0370	-	4.0	120	1	23LE	17	20	1	X		
16	X-AIR DRYER	109	-	1.5	4.6 MCA	480	3	2BPH1E	10	15	3	X	X	3
17	COFFEE MAKER	204	1.2	-	10	120	1	22E1E	22	20	1	X		
18	COFFEE MAKER	204	1.2	-	10	120	1	22E1E	24	20	1	X		
19	ELEV. CAR LIGHTS FAN RECEPT	002	0.5	-	-	120	1	21SA	7	20	1		X	
20	AHU-152 SERVICE ENCL. LT'S	ROOF	1.0	-	8.3	120	1	23LE	20	20	1		X	
21	AHU-152 SERVICE ENCL. HTR	ROOF	1.5	-	12.5	120	1	23LE	22	20	1		X	
22	BAT. CONTROL PANEL	116	0.5	-	4.2	120	1	21LE	20	20	1		X	
23	TRIDIUM JACE CONTROL PANEL	116	0.5	-	4.2	120	1	21LE	22	20	1		X	
24	WATER HEATER WH-1	116	0.25	-	-	120	1	A	15	20	1		X	
25	FLR. CLEANING EQUIP. CHGR	303A	1.5	-	-	120	1	23LE	18	20	1	X		
26	CARD ACCESS CONTROL PANEL	116	1.0	-	-	120	1	21LE	20	20	1		X	
27	YAW BOX XFMR	SEE PLANS	-	-	-	120	1	SEE PLANS/SEE PLANS	20	1			X	
28	MAU-1 CONTROL PANEL	117	0.5	-	-	120	1	A	13	20	1		X	
29	AIR QUALITY SENSOR	117	0.3	-	-	120	1	A	13	20	1		X	
30	MEDICAL GAS ALARM PANEL	212	0.015	-	1/8	120	1	22LUPS	17	20	1		X	
31	FIRE ALARM CONTROL PANEL	212	1.5	-	12.5	120	1	22LUPS	19	20	1		X	

ABBREVIATION:

ZSP = 2 SPEED MAGNETIC CONTROLLER

BOL = BUILT-IN OVERLOAD

CS = AMPERE RATED CIRCUIT BREAKER

CS = COMBINATION CONTROLLER

CR = CRITICAL CARE BRANCH

EC = ELECTRICAL, CONTRACTOR

EM = EMERGENCY SYSTEM

EQ = EQUIPMENT SYSTEM

ES = ESSENTIAL SYSTEM

F = AMPERE RATED FUSES

FD = FUSIBLE DISCONNECT

FSESC = FOOD SERVICE EQUIP. CONTRACTOR

IU = IN UNIT

LMRS = LIFE SAFETY MOTOR RATED SWITCH

LS = LIFE SAFETY BRANCH

MAG = MAGNETIC CONTROLLER

MAN = MANUAL CONTROLLER

MFR = MANUFACTURER

N = NORMAL BRANCH

NU = NEAR UNIT

OCPP = OVERCURRENT PROTECTIVE DEVICE

OU = ON UNIT

RVS = REDUCE VOLTAGE CONTROLLER

S = AMPERE RATED SWITCH

SA = SEE ARCHITECTURAL DETAILS

SD = SEE ONELINE DIAGRAM

SEP = SEE FLOOR PLAN

VF = VARIABLE FREQUENCY DRIVE

XFMR = TRANSFORMER

WP = WEATHER PROOF

OPTIONS:

1 = SINGLE RECEPTACLE

2 = DUPLEX RECEPTACLE

3 = DIRECT CONNECTION

4 = NON-FUSIBLE DISCONNECT

5 = FUSIBLE DISCONNECT

6 = WEATHERPROOF

7 = LOCKABLE

8 = CONCEALED

10

MOTOR WIRING SCHEDULE																							
NO.	DRIVING	LOC.	HP	FLA	VOLT	PH.	FEED FROM				BREAKER				STARTER				DISCONNECT				REMARKS
							PANEL	CIRCUIT	SIZE	POLE	TYPE	FURN	INS	WIRED	LOC.	TYPE	FURN	INS	WIRED	LOC.			
1	ELEVATOR	0002	40	69	480	3	DPHE	10	100	3	SS	MFR	MFR	MFR	OU	FSS	EC	EC	EC	EC			
2A	AHU-152 SUPPLY FAN	ROOF	30	40	480	3					VFD	MFR	MFR	MFR	OU								
2B	AHU-152 EXHAUST FAN	ROOF	5	7.6	480	3	DPHE	12	80	3	VFD	MFR	MFR	MFR	OU	DS	MFR	MFR	MFR	OU			
2C	HEAT RECOVERY WHEEL HRW-1	ROOF	14	0.7	480	3					MAG	MFR	MFR	MFR	OU								
3	NOT USED																						
4	MAKE-UP AIR UNIT MAU-1	117	3	4.8	480	3	2BPHF	1	15	3	VFD	MFR	MFR	MFR	OU	DS	MFR	MFR	MFR	OU			
5	PUMP HMM-1	116	3	4.8	480	3	2BPHF	3	15	3	VFD	MC	EC	EC	NU	FSS	EC	EC	EC	NU			
6	PUMP HMM-2	116	3	4.8	480	3	2BPHF	5	15	3	VFD	MC	EC	EC	NU	FSS	EC	EC	EC	NU			
7	COND. RETURN UNIT CUR-1	117	2	4.8	480	3	2BPHF	7	15	3	VFD	MC	EC	EC	NU	DS	MFR	MFR	MFR	OU			
8	ELEVATOR EF-2	117	2	3.4	480	3	2BPHF	9	15	3	VFD	MC	EC	EC	NU	DS	MFR	MFR	MFR	OU			
9A	DUCTLESS SPLIT ACU-1	OUTSIDE - 17' 11MCA	208	1	211E	15,17	20	2	MAG	MFR	MFR	MFR	OU	DS	EC	EC	EC	EC	NU				
9B	DUCTLESS SPLIT DSS-1	002E - 11MCA	208	1										DS	EC	EC	EC	EC	NU	12			
10A	DUCTLESS SPLIT ACU-2	OUTSIDE - 21MCA	208	1	211E	19,21	25	2	MAG	MFR	MFR	MFR	OU	DS	EC	EC	EC	EC	NU				
10B	DUCTLESS SPLIT DSS-2	007E - 11MCA	208	1										DS	EC	EC	EC	EC	NU	12			
11	H.W. UNIT HEATER UH-1	117	1/5	2.8	120	1	B	2	20	1	-	-	-	-	DS	MFR	MFR	MFR	OU				
12	H.W. UNIT HEATER UH-2	117	1/5	2.8	120	1	B	4	20	1	-	-	-	-	DS	MFR	MFR	MFR	OU				
13	CABINET UNIT HEATER CUH-1	001	1/30	-	120	1	A	16	20	1	-	-	-	-	DS	MFR	MFR	MFR	OU				
14	CABINET UNIT HEATER CUH-2	110	1/30	-	120	1	211E	12	20	1	-	-	-	-	DS	MFR	MFR	MFR	OU				
15	EXHAUST FAN EF-2	ROOF	1/2	-	480	3	2BPHF	10	15	3	MAG	MC	EC	EC	NU	DS	MFR	MFR	MFR	OU			
16	SUMP PUMP SP-1	ELEV. PIT	1/4	5.8	120	1	21B1E	12	20	1	MAG	MFR	MFR	MFR	CP	DS	EC	EC	EC	NU			
17	OVERHEAD DOOR MOTOR	117	-	-	120	1	B	20	20	1	MAG	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU			
18	CIRCULATING PUMP C-1	002	FRAC	-	120	1	A	39	20	1	-	-	-	-	DS	EC	EC	EC	NU				
19	CABINET UNIT HEATER CUH-3	STAIR 2	1/30	-	120	1	A	16	20	1	-	-	-	-	DS	MFR	MFR	MFR	OU				
20	CABINET UNIT HEATER CUH-4	STAIR 2	1/30	-	120	1	21B1E	26	20	1	-	-	-	-	DS	MFR	MFR	MFR	OU				
21	X-BRING PUMP NO. 1	001	FRAC	-	480	3	2BPHF	2	15	3	MAG	EC	EC	EC	NU	CS	EC	EC	EC	NU			
22	X-BRING PUMP NO. 2	002	FRAC	-	480	3	2BPHF	4	3	3	MAG	EC	EC	EC	NU	CS	EC	EC	EC	NU			
23	X-AIR COMP. NO. 1	109	30	40	480	3	2BPHF	6	80	3	MAG	EC	EC	EC	NU	CS	EC	EC	EC	NU			
24	X-AIR COMP. NO. 2	109	30	40	480	3	2BPHF	8	80	3	MAG	EC	EC	EC	NU	CS	EC	EC	EC	NU			
25	H.C. DOOR OPERATOR	100	FRAC	5	120	1	21LSA	1	20	1	SS	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU	3		
26	H.C. DOOR OPERATOR	101	FRAC	5	120	1	21LSA	3	20	1	SS	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU	3		
27	H.C. DOOR OPERATOR	103	FRAC	5	120	1	21LSA	5	20	1	SS	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU	3		
28	H.C. DOOR OPERATOR	105	FRAC	5	120	1	211E	14	20	1	SS	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU	3		
29	H.C. DOOR OPERATOR	106	FRAC	5	120	1	211E	16	20	1	SS	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU	3		
30	H.C. DOOR OPERATOR	213	FRAC	5	120	1	21LSA	2	20	1	SS	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU	3		
31	H.C. DOOR OPERATOR	214	FRAC	5	120	1	21LSA	6	20	1	SS	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU	3		
32	H.C. DOOR OPERATOR	215	FRAC	5	120	1	21LSA	8	20	1	SS	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU	3		
33	H.C. DOOR OPERATOR	303	FRAC	5	120	1	21LSA	4	20	1	SS	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU	3		
34	H.C. DOOR OPERATOR	304	FRAC	5	120	1	21LSA	19	20	1	SS	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU	3		
35	H.C. DOOR OPERATOR	305	FRAC	5	120	1	21LSA	21	20	1	SS	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU	3		
36	CABINET UNIT HEATER CUH-5	STAIR 1	1/30	-	120	1	211E	12	20	1	-	-	-	-	DS	MFR	MFR	MFR	OU				
37	CABINET UNIT HEATER CUH-6	STAIR 1	1/30	-	120	1	21B1E	26	20	1	-	-	-	-	DS	MFR	MFR	MFR	OU				
38	H.C. DOOR OPERATOR	305	FRAC	5	120	1	21LSA	21	20	1	SS	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU	3		
39	H.C. DOOR OPERATOR	305A	FRAC	5	120	1	21LSA	21	20	1	SS	MFR	MFR	MFR	OU	DS	EC	EC	EC	NU	3		
REMARKS																							
1. PROVIDE WIRING BETWEEN OUTDOOR UNIT AND INDOOR UNIT.																							
2. PROVIDE RECEPTACLE FOR CONDENSATE PUMP.																							
3. PROVIDE OUTLET BOX ROUGH-IN FOR (2) REMOTE PUSH PLATES. LOW VOLTAGE WIRING BETWEEN CONTROLLER AND PUSH PLATES BY DOOR INSTALLER.																							

100% CONSTRUCTION DOCUMENTS

[illegible]

PANEL DPHE (EXISTING)																																		
MOUNT			SPACES		LOCATION		VOLTAGE		PH	WIRE	MAIN BUS RATING				MCB		MLO		WIRE			CONDUIT												
SURFACE			42		RM. 107		277/480		3	4	800A				-		800A		-															
POLE NO.	BREAKER POLE	AMP	OUTLET			DESCRIPTION					VA	PHASE LOAD VA			VA	DESCRIPTION					OUTLET			BREAKER		POLE NO.								
			LGT	REC	MIS						A	B	C	LGT	REC						MIS	POLE	AMP											
1	3	100			X	PANEL A-B					2672	2672				PANEL LHE								3	400	2								
														2014							2014													
														250								250												
3	3	60			X	INCINERATOR										PANEL HR								3	200	4								
5	3	20			X	COND. PUMP						8700			8700	MIS-1 AND 2UPS								X	3	50	6							
																					6120			6120										
																							6135	6135										
7	3	20			X	COND. PUMP						31287			31287	PANEL 2/BPHE								3	225	8								
																					31287			31287										
																							31287	31287										
9	3	100			X	PANEL 2/1HE					2940	14025			11085	ELEVATOR (MTR. #1)								X	3	100	10							
														1930							13015			11085										
														2300								13385		11085										
															15519									15519										
11	-	-				SPACE							15519		15519	AHU-152 (MTR. #2)								X	3	80	12							
																						15519		15519										
																							15519	15519										
															38408									38408										
13	-	-				SPACE						36367			36367	TRANSFORMER TR-DPLE								X	3	200	14							
																						32039		32039										
						PHASE TOTALS:					110611	104322	98615	PHASE TOTALS																				
						TOTAL VA:					12,106						301,442	:TOTAL VA																

three inches = one foot

one and one half inches = one foot

one inch = one foot

one inch = one foot

three quarters inch = one foot

one half inch = one foot

three eighths inch = one foot

one quarter inch = one foot

one eighth inch = one foot

PANEL 2/DPLE																AIC = 22KA						
MOUNT		SPACES		LOCATION		VOLTAGE		PH	WIRE	MAIN BUS RATING			MCB	MLO		WIRE			CONDUIT			
SURFACE		42		RM. 107		120/208		3	4	400A			400A	-		-			-			
POLE NO.	BREAKER POLE	AMP	LGT	REC	MIS	DESCRIPTION		VA	PHASE LOAD VA			VA	DESCRIPTION		OUTLET			BREAKER		POLE NO.		
									A	B	C					LGT	REC	MIS	POLE	AMP		
1								10868	19228			8360									2	
3	3	225				PANEL 2/1LE		10321		19991		9670		PANEL 2/2LE					3	225	4	
5								7943			16643	8700									6	
7								9940	10480			540									8	
9	3	225				PANEL 2/3LE		10020		10256		236		PANEL 2/BLE					3	60	10	
11								6090			9261	1171									12	
13									8700			8700									14	
15										6120		6120		PANEL 2/1LE-1 (ALTERNATE #2)					3	100	16	
17											6135	6135									18	
19																					20	
21																					22	
23																					24	
25																					26	
27																					28	
29																					30	
31																					32	
33																					34	
35																					36	
37																					38	
39																					40	
41																					42	
PHASE TOTALS:									38408	36367	32039	:PHASE TOTALS										
TOTAL VA:								57,182				49,632	:TOTAL VA									

PANEL 2/BLE																AIC = 10KA							
MOUNT			SPACES		LOCATION		VOLTAGE		PH		WIRE		MAIN BUS RATING		MCB		MLO		WIRE			CONDUIT	
SURFACE			12		RM. 002		120/208		3		4		100A		60A								
POLE NO.	BREAKER POLE	AMP	OUTLET			DESCRIPTION	VA	PHASE LOAD VA			VA	DESCRIPTION	OUTLET			BREAKER POLE	AMP	NO.					
			LGT	REC	MIS			A	B	C			LGT	REC	MIS								
1	1	20				SPARE																2	
3	1	20				SPARE																4	
5	1	20		X		EQUIPMENT ROOM LIGHTS	295				295											6	
7	1	20			X	EQUIPMENT ROOM OUTLETS	540	540														8	
9	1	20		X		SHAFT LIGHTS	236		236													10	
11	1	20			X	PIT OUTLET	180				876	696	PIT SUMP PUMP					X	1	20		12	
PHASE TOTALS:							540	236		1171	PHASE TOTALS												
TOTAL VA:							1,251				696	:TOTAL VA											

PANEL 2/1LUPS*																AIC = 10KA						
MOUNT		SPACES		LOCATION		VOLTAGE		PH		WIRE		MAIN BUS RATING		MCB		MLO		WIRE		CONDUIT		
SURFACE		30		RM. 116		120/208		3		4		100A		100A		-		-		-		
POLE NO.	BREAKER POLE	AMP	OUTLET		DESCRIPTION	VA	PHASE LOAD VA			VA	DESCRIPTION	OUTLET			BREAKER POLE	AMP	POLE NO.					
			LGT	MIS			A	B	C			LGT	REC	MIS								
1	1	20		X	RECEPT'S - WORKSTATIONS	540	1260			720	RECEPT'S - WORKSTATIONS		X		1	20	2					
3	1	20		X	RECEPT'S - WORKSTATIONS	720		1440		720	RECEPT'S - WORKSTATIONS		X		1	20	4					
5	1	20		X	RECEPT'S - WORKSTATIONS	720			1440	720	RECEPT'S - WORKSTATIONS		X		1	20	6					
7	1	20		X	RECEPT'S - WORKSTATIONS	720	1440			720	RECEPT'S - WORKSTATIONS		X		1	20	8					
9	1	20		X	RECEPT'S - WORKSTATIONS	720		1080		360	RECEPT'S - WORKSTATIONS		X		1	20	10					
11	1	20		X	RECEPT'S - WORKSTATIONS	720			1440	720	RECEPT'S - OFFICES		X		1	20	12					
13	1	20			SPARE						SPARE				1	20	14					
15	1	20			SPARE						SPARE				1	20	16					
17	1	20			SPARE						SPARE				1	20	18					
19																	20					
21																	22					
23																	24					
25							6000			6000	PANEL 2/2LUPS						26					
27								3600		3600					3	60	28					
29									3255	3255							30					
PHASE TOTALS:						8700	6120	6135	PHASE TOTALS													
TOTAL VA:						4,140	16,815						TOTAL VA									

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

PANEL 2/BPHE															AIC = 35KA											
MOUNT			SPACES		LOCATION		VOLTAGE		PH	WIRE	MAIN BUS RATING			MCB	MLO	WIRE			CONDUIT							
SURFACE			42		RM. 117		277/480		3	4	225A			225A	-	-			-							
POLE NO.	BREAKER POLE	AMP	OUTLET			DESCRIPTION					VA	PHASE LOAD VA			VA	DESCRIPTION					OUTLET			BREAKER POLE	POLE NO.	
			LGT	REC	MIS							A	B	C							LGT	REC	MIS		AMP	
1	3	15			X	MAU-1 (MTR. #4)					1330	1635			305	X-BRINE PUMP #1							X	3	15	2
	3	15			X	HWP-1 (MTR. #5)					1330		1635		305	X-BRINE PUMP #2							X	3	15	4
											1330	1635		305												
											1330	1635		305												
5	3	15			X	HWP-2 (MTR. #6)					1330	12415			11085	X-AIR COMPR. #1							X	3	80	6
											1330		12415		11085											
											1330			12415												
7	3	30			X	CRU-1 (MTR. #7)					2300	13385			11085	X-AIR COMPR. #2							X	3	80	8
											2300		13385		11085											
											2300			13385												
9	3	2-			X	EF-1 (MTR. #8)					942	2217			1275	X-AIR DRYER							X	3	15	10
											942		2217		1275											
											942			2217												
11	3				SPACE										SPACE										12	
13	3				SPACE										SPACE										14	
PHASE TOTALS:							31287	31287	31287	PHASE TOTALS																
TOTAL VA:							21,696			72,165	TOTAL VA															

PANEL A (EXISTING)																					
MOUNT			SPACES		LOCATION		VOLTAGE		PH	WIRE	MAIN BUS RATING			MCB	MLO		WIRE			CONDUIT	
SURFACE			42		RM. 116		120/208		3	4	225A				225A						
POLE NO.	BREAKER	POLE	AMP	OUTLET		DESCRIPTION	VA	PHASE LOAD VA			VA	DESCRIPTION	OUTLET			BREAKER	POLE	AMP	NO.		
				LGT	REC			MIS	LGT	REC			MIS								
1	1	20		X		OFFICE LIGHTS						CONTROL CKT. FOR VFD			X	1	20	2			
3	1	20			X	COMPUTER RECEPT.						JOHNSON CONTROLS			X	1	20	4			
5	1	20			X	OFFICE CLOCK AND RECEPT.												6			
7	1	20			X	OFFICE RECEPT.						STOVE			X		2	50	8		
9	1	20				ACID PUMP CONTROLLER									X	1	20	10			
11	1	20				SPARE						FIRE ALARM RECORDER			X	1	20	12			
13	1	20			X	MAU-1 CTRL. PNL. & AIR QUALITY SENSOR	800	800				BANK SOFTENER			X	1	20	14			
15	1	20				WATER HEATER, WH-1	250		550		300	CUH-1, CUH-3			X	1	20	16			
17	1	20				SPARE						LAUNDRY STEAM METER			X	1	20	18			
19	1	20			X	WATER COOLER AND BSMT. RECEPT.												20			
21	1	20	X			BSMT. LIGHTS						SPARE				2	30	22			
23	1	20	X			TUNNEL LIGHTS						SPARE			X	1	20	24			
25	1	20			X	VORTEX CONTROL PANEL						REFRIGERATOR			X	1	20	26			
27	1	20			X	OFFICE EXHAUST FAN						JC 80 POWER			X	1	20	28			
29	1	20				TUNNEL LIGHTS						AIR DRYER			X	1	30	30			
31	1	20	X			TUNNEL LIGHTS						SPARE				1	20	32			
33	1	20				?????						SPARE				1	20	34			
35	1	20			X	CORAVOL PUMP						SPARE				1	20	36			
37	1	20				SPARE												38			
39	1	20			X	CIRC. PUMP CP-1	528		528			3 PH TRANE A/C OFFICE			X	3	30	40			
41	1	20	X			SOFTENER AREA LIGHTS												42			
						PHASE TOTALS:		800	1078			PHASE TOTALS									
						TOTAL VA:		1,578			300	TOTAL VA									

PANEL B (EXISTING)																						
MOUNT		SPACES		LOCATION		VOLTAGE		PH	WIRE	MAIN BUS RATING			MCB	MLO		WIRE			CONDUIT			
SURFACE		42		RM. 120		120/208		3	4	225A			-	225A								
POLE NO.	BREAKER NO.	POLE	AMP	OUTLET		DESCRIPTION	VA	PHASE LOAD VA			VA	DESCRIPTION	OUTLET		BREAKER	POLE	AMP	POLE NO.				
				LGT	REC			MIS	LGT	REC			MIS									
1	1	1	20			GEN. RM. LTS: POWER FOR METER ON GEN.		336			336	H.W. UNIT HEATER (UH-1)			X	1	20	2				
3	1	1	20			RECEPT. NORTH WALL GENERATOR RM.				336	336	H.W. UNIT HEATER (UH-2)			X	1	20	4				
5	1	1	20			GEN. RM. HEATER FAN; STORAGE RM. AHU						SPARE					1	20	6			
7		2	20			EMERGENCY GEN. CRANKCASE HEATER						RECEPT. ON CENTER COLUMN					1	20	8			
9										600	600	BOILER ROOM LTG	X				1	20	10			
11	1	1	20			LTS ELEC. RM. & OUTSIDE BY GAS METERS				250	250	EQUIPMENT ROOM & NEW CORR LTG	X				1	20	12			
13	1	1	20			ELEC. RM. RECEPT.		360			360	BOILER ROOM RECEPTACLES		X			1	20	14			
15	1	1	20			OUTSIDE TRANSFORMER HEATER						SPARE					1	20	16			
17	1	1	20			POWER FOR MGE METER						SPARE					1	20	18			
19	1	1	20			EMERGENCY GENERATOR		1176			1176	OVERHEAD DOOR OPERATOR			X		1	20	20			
21	1	1	20			EMERGENCY GEN. BATTERY CHARGER						SPRINKLER SYSTEM RECEPT.					1	20	22			
23	1	1	20			EMERGENCY GAS SHUT OFF SYSTEM						110V WIREMOLD RECEPT.					1	20	24			
25	1	1	20			LIGHTS WORKSHOP						110V WIREMOLD RECEPT.					1	20	26			
27	1	1	20			WORKSHOP HEATER FAN						GAS STATION LIGHTS					1	20	28			
29	1	1	20			FUEL OIL DAY TANK PUMP						WATER SPRINKLER - LAWN					1	20	30			
31	1	1	20			HORN FOR CO2 SYSTEM						TLS					1	20	32			
33	1	1	20			????						220 WIREMOLD RECEPT.					1	20	34			
35	1	1	20			SPARE						220 WIREMOLD RECEPT.					1	20	36			
37	1	1	20			JOHNSON CONTROLS													38			
39	1	1	20			SPARE						3 PH. WELDER OUTLET				3	60	40				
41	1	1	20			VA SIGN AND OUTLET NORTH OUTSIDE													42			
PHASE TOTALS:								1872		936	250	PHASE TOTALS										
TOTAL VA:												3,058	TOTAL VA:									